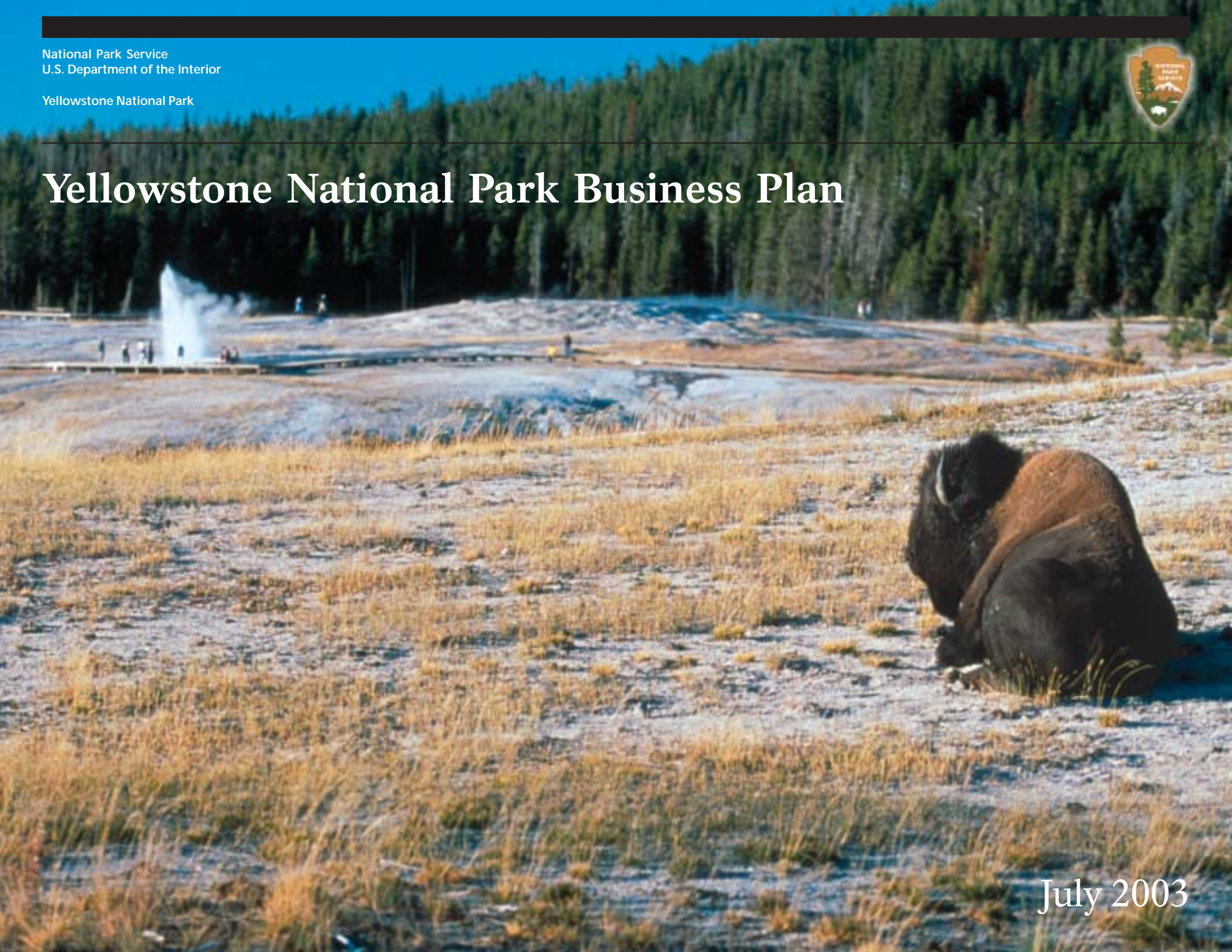


National Park Service
U.S. Department of the Interior

Yellowstone National Park



Yellowstone National Park Business Plan



July 2003





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The National Park Service Act

Approved August 25, 1916

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,
That there is hereby created in the Department of the Interior a service to be called the National Park Service...[which] shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purpose...to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.



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Yellowstone National Park
Mammoth Hot Springs, Wyoming

*All photos courtesy National Park Service
Photo Archives unless otherwise noted.*

Introduction

The purpose of business planning in the National Park Service (NPS) is to improve the abilities of parks to more clearly communicate their financial status with principal stakeholders. A business plan answers questions such as, “What is the business of this park unit?” and “How much funding and staff does this park need to operate within appropriate standards?” This plan summarizes the functional responsibilities, operational standards, and financial picture of the park.

The business planning process accomplishes three main tasks. First, it provides the park with a synopsis of its funding history. Second, it presents a clear, detailed picture of the state of current park operations and funding. Finally, it outlines park priorities and funding strategies.

All parks apply a common methodology when developing business plans. Park operations are organized into five functional areas that describe the business for which a park is responsible. The functional areas are then further broken down into 35 programs. This allows the park to report expenditures in terms of activities rather than fund sources, enabling it to communicate its financial situation to external audiences more clearly. Furthermore, using the same 35-program structure for all parks provides a measure of comparability across park units. This process is aided by the use of an Electronic Performance Support System, a web-based application that allows parks to complete the data collection, analysis, and document production with step-by-step instruction.

The business planning process not only results in a powerful communication tool, but also provides park managers with financial and operational baseline knowledge for future decision-making.



Yellowstone Lake encompasses an area of 136 square miles at an altitude of 7,730 feet, making it the largest high-elevation lake in North America.

Roger Anderson

Management Team Foreword

The National Park Service is responsible for the finest of our nation's treasures, many of which are found in Yellowstone National Park (YNP). People from around the world come to Yellowstone each year to experience the wonders of its unique geothermal features, herds of free-roaming wildlife, pristine waters, and remarkable mountain scenery.

As the stewards of this special place, we are charged with protecting its priceless resources. Park stewardship means much more than simply ensuring that park resources remain unimpaired for future generations. It means keeping the visitors who come to experience the park safe to the best of our ability; doing all we can to learn more about the resources we protect through research; using the best methods and innovations to maintain our trails and his-

toric buildings; complying with the requirements set forth in laws and mandates; and striving to educate and inspire the public through the messages we present in our interpretive programs, exhibits, and publications. We protect the park by understanding, every day, that Yellowstone is valuable not just for its tangible resources—that its value also lies in the intangible ideas it represents, and that formed the basis for the creation of the NPS's other 387 units.

In looking toward the future, we envision many ways to better protect our resources and visitors, increase the sustainability of infrastruc-

ture, and provide services and educational opportunities for visitors. Improving our ability to meet our mission may require additional funding—a demanding challenge under any circumstances, and especially during these difficult times. It is perhaps during such times, however, that our mission to protect places of beauty, wildness, and recreation becomes most crucial.

Our desire to be an NPS leader in responsible economic innovation and accountability has led us to engage in a private-sector approach to analyzing our way of doing business. As part of the business planning process that led to this document, we have re-visited our park mission and supporting goals and formulated parkwide priorities linking our future direction with our fundamental responsibilities. We are committed to developing pioneering approaches to more effectively meet the park's mission. Yellowstone has a rich history, a dedicated staff, and strong support from a variety of stakeholders, and together we pledge to explore new ways of ensuring that the park's fiscal future is based on sound information and effective planning.

This business plan explains our mission and goals, and the ways in which we support them with our everyday operations. More importantly, it examines our strategic plans for the future, and how we plan to move toward our goals in the next five years. Ultimately, we hope that this process will lead to operational enhancements that will both improve resource protection and help the public understand and appreciate the significance of Yellowstone, inspiring them to become lifelong partners in its preservation.

We invite you to explore the following pages to learn about what we do every day to provide our visitors with a beautiful, safe, and sustainable “wonderland.”



Yellowstone's Management Team, 2003. Left to right: Mona Divine, Frank Walker, Suzanne Lewis, John Varley, Diane Chalfant, Kathy Tustanowski-Marsh, John Sacklin, Marsha Karle, and Joanne Timmins.

Executive Summary

This plan is a measure of the financial and human resources required for Yellowstone to fulfill its mandates. It focuses on the costs of operating the park that can be changed—namely, priorities and strategies for increasing internal efficiencies and the overall effectiveness of park management. Some factors that influence costs cannot be changed, including:

- **Geography:** Encompassing 2.2 million acres, the park is nearly the size of Connecticut. It takes about three hours to drive the 95 miles between the park's North and South Entrances. The park's size and geographic isolation affect almost every aspect of its operations and activities, from maintaining roads to counting and classifying animals to patrolling the backcountry.
- **Responsibilities:** The park must comply with hundreds of laws, mandates, and training requirements affecting park operations. Implementation is sometimes simple, but can also prove time-consuming, expensive and, at times, contentious. Furthermore, the park is an area of exclusive federal jurisdiction. While some other parks may be able to rely on local/regional agencies for services such as law enforcement, road maintenance, or utilities, Yellowstone's personnel provide all these services for the park and, in some instances, for surrounding communities.
- **Visitor numbers and expectations:** As more people come to Yellowstone, particularly in fall and winter, the park's personnel are expected to provide more interpretive and safety services during a lengthening busy season.

In Fiscal Year (FY) 2002, YNP spent \$41.7M on day-to-day Operations and Maintenance (O&M) and \$13.3M on one-time Investments. Since 1980, visitation has increased by 50%, yet the park's appropriated base funding has increased at a nominal (non-inflation adjusted) rate of 4.8%, which is 1.4% after adjusting for inflation. While the budget appears to have increased \$17.5M since FY80, the inflation-adjusted increase is actually \$3.4M.

Yellowstone does many things well. The park annually serves approximately three million visitors. Periodic surveys and a high volume of correspondence show that visitors' experiences are strongly positive. The park has been quite effective at protecting a wealth of resources (including approximately two-thirds of the world's geysers, 10,000 thermal features, 3,000 bison, 150 wolves, and nearly 380,000 museum objects) for the enjoyment of this and future generations. Park employees also perform maintenance and restoration on 466 miles of roads, 1,000 miles of trails, and some 710 of the park's 1,541 buildings.

To better meet our mission, several gaps must be bridged. We seek to develop a stronger research program for efficient and effective policymaking; be better able to meet standards for law enforcement, emergency medical response, and structural fire protection; provide more interpretive services, especially to the growing number of fall and winter visitors; streamline financial management and improve information technology; and invest in activities such as road reconstruction and fleet replacement to alleviate high repair costs, then follow these investments with a strong preventive maintenance program that will maximize the lifespan of the park's material assets.

The total O&M cost of bridging these gaps is estimated to be \$22.7M, including the Full Time Equivalent (FTE) of 271 employees. This deficit represents 35% of the required O&M budget (\$64.4M). Yellowstone's percentage of deficit is consistent with those identified by many other parks that have completed the same business planning process.

Yellowstone will do its part. In the final section of this plan, we identify and address our high-priority needs and identify new strategies for reducing costs and increasing revenue. The estimated benefit of these strategies is \$2.2M.

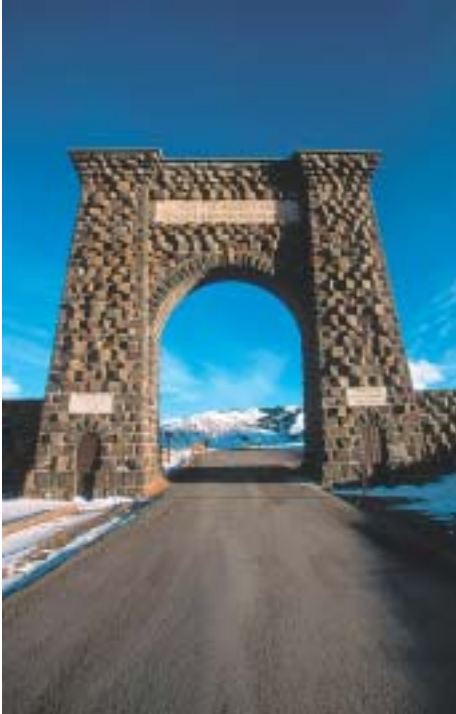


Visitor photo

Yellowstone contains the world's largest concentration of geysers. "Geyser-gazing" is a popular pastime among the park's three million annual visitors.

Park Overview

Park at a Glance



Language from the park's Organic Act is etched into the Roosevelt Arch, a classic symbol of the national park idea and first gateway to Yellowstone.

Geography

Established on March 1, 1872, Yellowstone National Park spans 2.2 million acres—an area roughly the size of Connecticut. Most of the park is located in the northwestern corner of Wyoming; a small portion overlaps Montana and Idaho. Five entrance stations provide access to the park by way of its 466 miles of roads. Visitor centers and museums are located at key points along the park boundary and the Grand Loop, Yellowstone's figure-eight shaped roadway.

The park is comprised primarily of a high, forested, volcanic plateau that is flanked on the north, east, and south by the northern Rocky Mountains. The Continental Divide traverses the park from its southeastern corner to its western boundary. Elevation averages 8,000 feet, ranging from 5,282 feet at the North Entrance to 11,358 feet at the summit of Eagle Peak.

Geologic Resources

Most of Yellowstone National Park lies within one of the world's largest volcanic calderas, which runs through the 20-mile-long Yellowstone Lake and encircles the park's major geyser basins. The volcano's last major eruption occurred approximately 640,000 years ago. Preserved within Yellowstone are some 10,000 thermal features, including the famous Old Faithful Geyser.

Natural Resources

Although the park was originally established to protect its unique thermal landscape, other aspects of the park have become equally important, as well as symbolic. An outstanding mountain wildland, Yellowstone is home to grizzly bears, gray wolves, and free-ranging herds of bison and elk. It is the core of the Greater Yellowstone Ecosystem, one of the most fully-intact temperate zone ecosystems remaining on the planet. With but a few exceptions, the region appears to have retained or been restored to its full

historic complement of vertebrate wildlife species—something truly unique in the wildlands of the contiguous 48 states. The park's biological diversity reflects its habitat diversity, ranging from semi-arid sagebrush and high alpine areas to thermal basins, forests, meadows, and myriad other types. Yellowstone's streams and rivers connect these habitats and are an essential component of the ecosystem. The park's significance as a world treasure was officially recognized when it was designated an International Biosphere Reserve and a World Heritage Site in 1976 and 1978, respectively.

Cultural Resources

The park's human history dates back more than 12,000 years. The legacy of how American Indians, generations of travelers, area residents, and park managers have used the park's natural and built landscape makes Yellowstone as distinctive culturally as it is naturally. The park contains nearly 1,000 historic structures, many of which are still used for visitor lodging, employee housing, and work spaces. The park is home to six designated National Historic Landmarks. Its historic structures and sites reflect the legacy of various periods of park administration and American history. The library and archives preserve a 131-year accumulation of records about park resources and administration. The museum collection is comprised of nearly 380,000 objects, including historic paintings, photographs, hotel furnishings, antique cars and stagecoaches, wildlife and herbarium specimens, and fossils.

Park Infrastructure

The park's infrastructure is extensive and widespread. Many of the park's facilities and services represent major capital investments that require considerable operational support on an ongoing basis. The unusually large scale of Yellowstone's infrastructure is an important consideration in the park's operation.

Park Management

Yellowstone is managed in seven distinct groups called divisions: Maintenance (49% of total park expenditures), Resource Management and Visitor Protection (23%), the Yellowstone Center for Resources (9%), Administration (7%), Business Management (4%), Interpretation (4%), and the Office of the Superintendent (4%). The operational categories in this plan differ slightly from these, instead reflecting the framework of organization by *function* used in all National Park Service business plans, allowing for comparison across park units.

Conservation Legacy

As the world's first national park, Yellowstone is often invoked as a symbol of the national park movement. Because of this visibility, the evolution of the park's management policies has influenced the history of conservation policy worldwide. Preserving resources for the enjoyment of this

and future generations is no simple task—and like other parks around the world, Yellowstone's approach to fulfilling this mission has adapted as scientific knowledge and social values have evolved.

Expressed through laws and mandates, society's expectations of Yellowstone and its managers have changed dramatically over the park's 131 years. Prominent examples of these changes include: the park's management of species and processes such as wolves, fire, and invasive exotics; its relationship with American Indians; and the growing importance of educating an increasingly urban public about ecological processes and their human influences.

The legacy of these changing social values is written on the land, both here in Yellowstone and in national parks around the world.

Enabling Legislation

Be it enacted...that the tract of land in the Territories of Montana and Wyoming lying near the head-waters of the Yellowstone River...is hereby reserved and withdrawn from settlement, occupancy, or sale...and dedicated and set apart as a public park or pleasuring-ground for the benefit and enjoyment of the people...

That said public park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be to... provide for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition... He shall provide against the wanton destruction of the fish and game found within said park, and against their capture or destruction for the purposes of merchandise or profit.
(17 Stat. 32, March 1, 1872)

Mission Statement

Preserved within Yellowstone National Park are Old Faithful and the majority of the world's geysers and hot springs. An outstanding mountain wildland, with clean water and air, Yellowstone is home of the grizzly bear and wolf and free-ranging herds of bison and elk. Centuries-old sites and historic buildings that reflect the unique heritage of America's first national park are also protected. Yellowstone National Park serves as a model and inspiration for national parks throughout the world. The National Park Service preserves, unimpaired, these and other natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations.

Yellowstone Inventory

General

2.2M acres with 291 miles of boundary
8,000-foot average elevation
387 permanent, fulltime employees

Natural Resources

two-thirds of the world's geysers
10,000 hot springs, mud pots, and fumaroles
2,463 miles of rivers and streams
634 lakes and ponds
316 bird species
61 native mammals
11 native and 5 non-native fish
1,098 native and 197 non-native plants
406 species of geothermal microbes (1% of thermal areas inventoried)



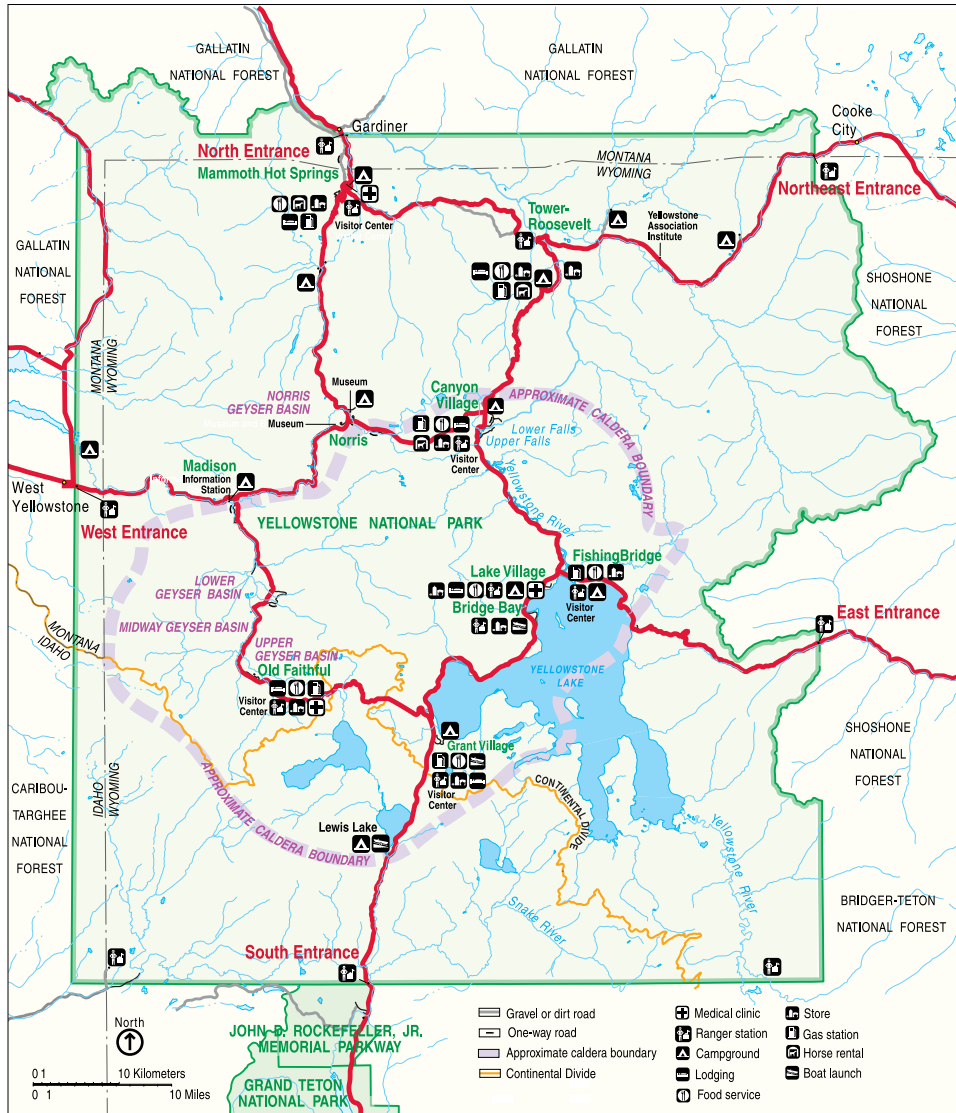
Cultural Resources

1,100 known archeological sites
26 affiliated American Indian tribes
951 historic structures
6 National Historic Landmarks
379,441 museum objects
4.89 million archival documents
39 historic vehicles



Infrastructure

1,541 buildings, including 831 maintained by concessioners
454 housing units, including 68 trailers
9 visitor centers, museums, and contact stations
7 campgrounds operated by the NPS
7 amphitheaters
466 miles of paved and unpaved roads
184 miles groomed for oversnow use
61 bridges
1,000 miles of trails with 96 trailheads
52 picnic areas
8 major water and wastewater systems
870 units in fleet
3,000 tons of solid waste generated annually (13% recycled)
3,671 units of communications equipment



Yellowstone National Park



Greater Yellowstone Area

Historical Context

Fund Source Analysis

Activities at Yellowstone are funded from four sources:

1) Congressionally **appropriated base** funds intended for day-to-day park operations; 2) Congressionally **appropriated non-base** funds intended for one-time programs such as research studies or major construction projects (e.g., the Federal Lands Highway Program); 3) **Revenue** generated from a variety of park and concessioner fees, donations, etc., and; 4) **Reimbursable** funds (e.g., fees paid to the park for services rendered, such as concessioner utility bills, employee housing costs, and mutual aid that provides services to gateway communities.)

YNP's expenditures have increased steadily in recent years, growing at a compound annual rate of 5.6% per year, from \$30.3M in FY92 to \$55.4M in FY02 (in nominal, non-inflation-adjusted terms). Several trends are noteworthy:

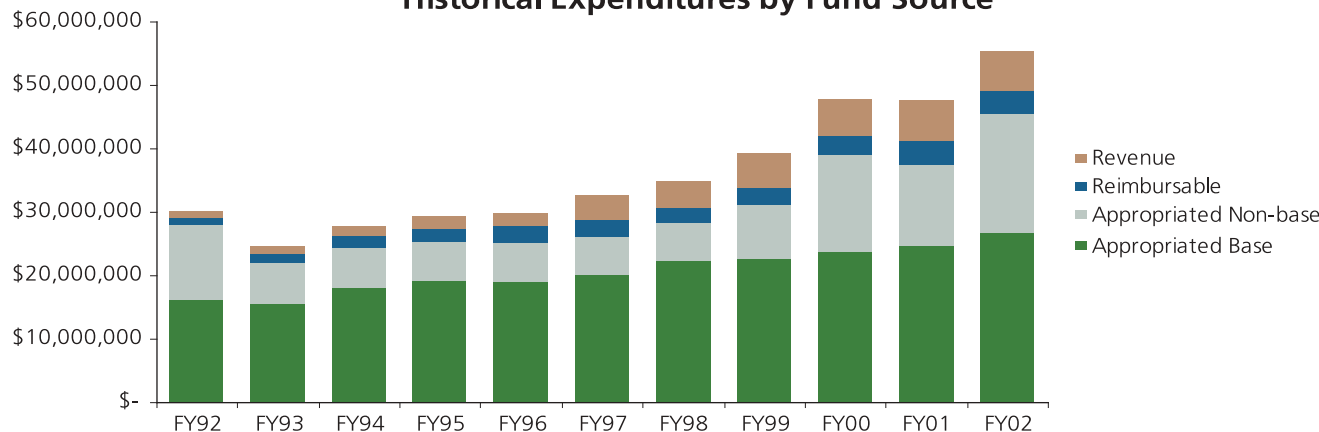
- **Relative decline in base funding:** Yellowstone's relative amount of base funding has declined in recent years, from a high of 65% of total park expenditures in FY94-95 to 48% in FY02, leaving the park with less funding available for day-to-day operations while the number of designated programs has increased. Furthermore, on average, appro-

priated base funds accounted for the majority of the park's spending (59%), which is proportionately lower than the average of 73% in other parks' business plans.

- **Increasing revenue:** Yellowstone began implementing the Fee Demonstration Program in 1997, allowing the park to retain 80% of fees collected. The graph below shows this revenue has been funding a greater share of expenditures since FY97 (from an average of 5% prior to FY97 to an average of 12% between FY97 and FY02). Of all revenue sources, park entrance fees are the most significant, accounting for about 70% of total park revenues. Entrance fees are first used for the park's school and then maintenance projects that directly benefit park resources and the public.
- **Dependence on non-base funds:** Between FY92 and FY02, an average of 25% of Yellowstone's expenditures were funded with appropriated non-base funds. However, this percentage varies greatly year by year (ranging from 17% to 40%), depending largely on when major construction projects are funded. Given the Congressionally mandated purposes of non-base funding and its considerable yearly fluctuation, Yellowstone should not depend on this funding source to support O&M activities.

Given the Congressionally mandated purposes of non-base funding and its considerable yearly fluctuation, Yellowstone should not depend on this funding source to support O&M activities.

Historical Expenditures by Fund Source



Adjusted Base Budget

The figure below illustrates the growth in Yellowstone's appropriated base budget since FY80, both in actual and inflation-adjusted terms. Appropriated base funds account for the majority of the park's spending (59% on average) for the past ten years. These funds are the best indicator of the park's day-to-day financial stability, because other funding sources vary widely from year to year.

While the appropriated base budget shows an increase of \$17.5M since FY80, this increase amounts to \$3.4M in real (inflation-adjusted) dollars.

Two important trends emerge from the figure below:

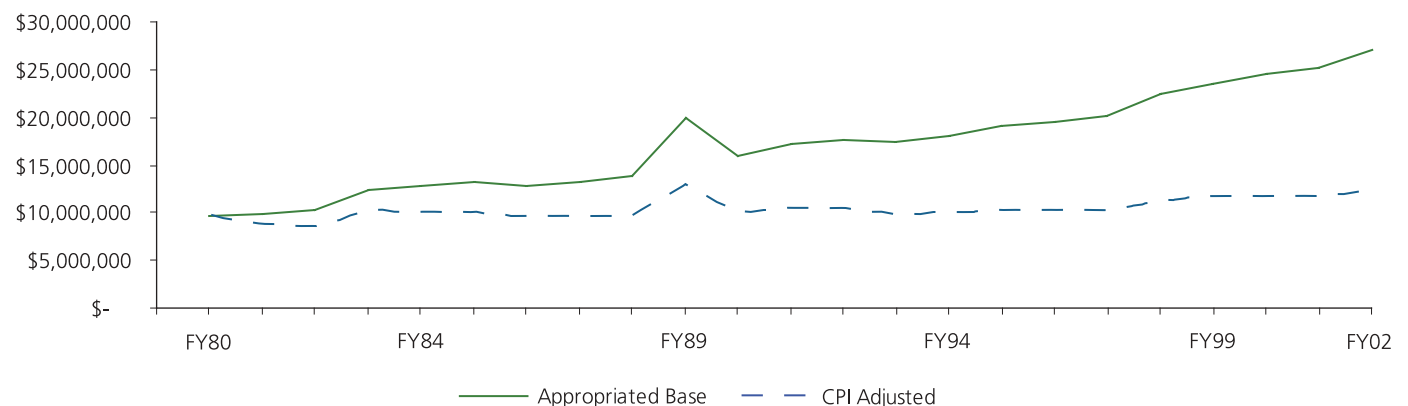
- **Yellowstone's appropriated base budget spiked in FY89**, when the park received a \$6.1M increase after the 1988 wildfires. Most of this base funding was intended for one-time projects relating to fire recovery, and as such was not renewed in future years.
- **The park's inflation-adjusted appropriated base budget has remained relatively flat over the last 20 years.** Appropriated base funds have grown at a relatively constant rate since 1980 (except for the spike in FY89). Before

adjusting for inflation (as measured by the Consumer Price Index), Yellowstone's appropriated base budget increased at a compounded annual growth rate of 4.8% between 1980 and 2002. After adjusting for inflation, however, the growth rate was actually 1.4%. This means that while the appropriated base budget shows an increase of \$17.5M since FY80, this increase amounts to \$3.4M in real (inflation-adjusted) dollars.

The park's largest base budget increases in recent years include the following:

- FY95—\$555K: To maintain roads and trails, and fund a water rights agreement with the state of Montana.
- FY98—\$1.5M: To enhance the welfare of the park's natural resources (\$1.3M) and visitor experience (\$233K).
- FY02—\$1.4M: To implement a long-term bison management plan (\$1.2M) and enhance winter operations to improve visitor experience and employee safety (\$200K).

Appropriated Base Budget History FY80–FY02



Analysis of Real Growth

The table below shows the change in YNP's labor costs from FY94 to FY02. It begins in FY94 due to changes in accounting systems prior to that year. After adjusting for inflation, labor expenditures increased by \$8.2M over this nine-year period, which can be attributed to two factors:

- **Cost of existing staff increased since FY94:** The NPS measures staff hours in terms of Full Time Equivalents (FTE), or 2,080 hours of work annually. The total contribution of all YNP personnel in FY94 (whether full time, part time, etc.) equaled 483 FTE. In FY94, the average cost of salary and benefits for one FTE was \$44,149 in 2002 dollars. This average increased to \$53,126 by FY02. The increased cost per FTE resulted in a labor cost increase of \$4.3M beyond inflation over the nine-year period. This can be attributed in part to automatic annual salary increases. As a result, costs rise as terms lengthen. Additionally, national initiatives to professionalize many

positions, such as Ranger and Resource Careers, increased the base pay of an average FTE. Finally, several factors increased the cost of providing personnel benefits.

- **New positions were added since FY94:** The addition of 72 FTE since FY94 resulted in increased costs of \$3.8M. These new positions represent the park's continuing efforts to better serve and protect visitors, improve protection of the park's resources, and maintain its infrastructure.

It is important to note that labor expenditures are decreasing as a percentage of the park's total costs. Between FY94 and FY02, the increase in labor represented only 36% of the \$22.4M rise in total expenses. The remaining non-labor expenditures are attributed to the implementation of a number of line-item construction programs, including the new Heritage and Research Center and housing improvements, which were almost entirely outsourced.



Yellowstone's sheer size, coupled with its unique variety of resources and geographic isolation, require retention of a sizable, diverse staff of highly skilled and dedicated individuals.

Yellowstone Operational Costs: All Fund Sources

	FTE	FY 1994 Actual Costs		FY 1994 Inflation Adjusted		FY 2002 Actual Costs		Net Cost Increase	
		Average	Total	Average	Total	Average	Total	Average	Total
FY1994 Staff	483								
Salary		\$30,883	\$14,916,474	\$36,905	\$17,825,287	\$42,987	\$20,762,764	\$6,082	\$2,937,476
Benefits		\$6,062	\$2,927,899	\$7,244	\$3,498,859	\$10,139	\$4,897,115	\$2,895	\$1,398,257
Subtotal		\$36,945	\$17,844,373	\$44,149	\$21,324,146	\$53,126	\$25,659,879	\$8,977	\$4,335,733
New Staff	72								
Salary						\$42,987	\$3,095,070	\$42,987	\$3,095,070
Benefits						\$10,139	\$730,005	\$10,139	\$730,005
Subtotal						\$53,126	\$3,825,075	\$53,126	\$3,825,075
Total Labor	555		\$17,844,373		\$21,324,146		\$29,484,954		\$8,160,808
Non-Labor			\$10,045,489		\$12,004,427		\$26,244,620		\$14,240,193
Total			\$27,889,862		\$33,328,574		\$55,729,574		\$22,401,001

Increased Cost Analysis



Yellowstone strives to provide all visitors with adequate access to park features.

Corresponding increases in appropriations have not always accompanied the park's growing responsibilities.

During the past two decades, the activities and functions required of Yellowstone National Park have greatly increased, both in terms of legal mandates and demand for services. Corresponding increases in appropriations have not always accompanied the park's growing responsibilities. Some of the major factors driving costs up include:

- *Changing Visitation Patterns:* Annual visitation has increased from about two million to three million between 1980 and 2002, and changes in the distribution of visitation have significantly increased costs over this period. Whereas the park was previously open for just over three months in summer and received very little winter visitation, the park is now open for almost seven months in spring, summer, and fall and receives approximately 140,000 visitors over three months in winter. These longer seasons have necessitated extending the term of many park jobs from seasonal to subject-to-furlough or permanent positions, increasing benefits costs in proportion to the increasing number of longer-term staff.

Estimated annual cost: \$556K

- *Conversion from CSRS to FERS:* Under the Civil Service Retirement System (CSRS), the cost to the park of employee benefits ranged from 6% to 12% of salary. In 1984, the U.S. Government began the conversion of all its employees to the Federal Employee Retirement System (FERS). Under FERS, the benefits costs formerly borne by the U.S. Treasury were transferred to the agency level, making the park responsible for the entire cost of 20–35% of salary. As more CSRS personnel retire, a greater percentage of park staff receives the more costly FERS suite of benefits. *Estimated annual cost: \$752K*
- *Ranger and Resource Careers:* In 1994, the NPS Ranger Careers initiative, approved by Congress, instituted position upgrades for both law enforcement and interpretive rangers. Law enforcement rangers also received 6(c) retirement classification. A similar 1999 Resource Careers

initiative instituted position upgrades for natural and cultural resource personnel. *Estimated annual cost: \$200K*

- *Cultural Resources Mandates:* In response to new laws and Executive Orders enacted over the last 20 years, the NPS has greatly expanded its emphasis on cultural resources such as archeological sites, historic structures, and cultural landscapes. Like many parks, Yellowstone now has a Branch of Cultural Resources where none existed before.
- *Planning Requirements:* In 1980, one employee met all of Yellowstone's planning needs. Today, management plans require extensive compliance reviews and often require comprehensive environmental impact statements, as mandated by the National Environmental Policy Act.
- *Information Technology:* Over the last two decades, information technology has become an increasingly critical tool for accomplishing the park's business. The park has created entirely new programs to meet these needs in a number of areas: computer and network support; web site development and management; cell phone service for the park's developed areas; and conversion to digital radios, as mandated by Congress.
- *Uniform Federal Accessibility Standards (UFAS):* Compliance with accessibility laws such as UFAS, the federal equivalent of the Americans with Disabilities Act, is mandatory, and essential for improving visitor experiences. Providing this access, however, can be expensive, especially for historic structures, as it includes building new access to infrastructure, providing sign language interpretation, and other adjustments.
- *Maintenance Backlog:* The lack of a preventive maintenance program greatly increases annual maintenance costs. For example, in FY02, the park overlaid five miles of road at a cost of \$340K per mile. Under an effective preventive maintenance program, this road segment would have been chip sealed earlier, when it was in better condition, saving \$223K per year. The park faces similar problems with the maintenance of most of its assets.

Analysis of Expenditures

This business plan defines nine categories of expenditures. The chart below shows that park expenditures grew steadily between FY92 and FY02, with the total rising at a compounded annual growth rate of 5.6% per year before adjusting for inflation. The main reason for this trend was a steady increase in personnel and benefits. Although labor costs are decreasing as a percentage of total expenditures, (from a high of 67% of total costs in FY93 to a low of 53% in FY02), due to larger increases in non-labor spending, the amount expended on labor costs has increased over the last ten years, and compensation costs have grown.

Although the chart below indicates overall steady growth, there are significant fluctuations that warrant discussion. The notable spikes in expenditures are driven by construction costs. These costs are distributed between *Other Services* and *Fixed Assets*.

Relative increases in *Other Services*: On average, Yellowstone spent \$5M per year on *Other Services*, which

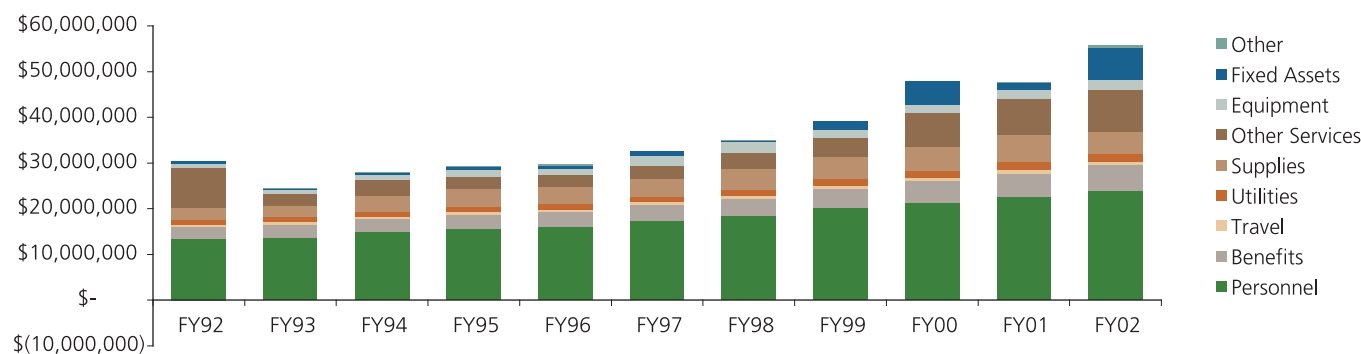
includes contractual costs for services such as architect and engineering designs, aircraft transport, studies and inspections, training, and consulting services. During FY92 and between FY00 and FY02, the park's *Other Services* expenditures exceeded the ten-year average by a range of 35–175%. These large spikes are due to high contract costs for the design and construction of new facilities and roads.

Relative increase in *Fixed Assets*: The park spent an annual average of \$1.7M on *Fixed Assets*, a category that covers contractual construction costs, non-contractual costs associated with the acquisition of land and structures, and costs for easements and rights-of-way. The park saw an unusual spike in *Fixed Assets* expenditures in FY00 related to sewage plant construction. During FY00–02, the park paid for the design and construction of the Heritage Center (\$6.8M), designed and built new housing (\$1.1M), and completed the design and reconstruction of several roads.



The park incurs significant annual costs related to aircraft transport, which is crucial to mission-critical activities such as wildlife monitoring, wildfire management, search and rescue operations, and law enforcement.

Historical Expenditures by Category



Visitation



Since 1980, Yellowstone's visitation has grown 50%, from approximately two to three million. Wildlife watching is a popular activity.

In 1895, when YNP began tracking visitation, 5,438 people visited the park. In 2002, that number was 2,978,360.

Factors influencing park visitation

Since 1980, Yellowstone's visitation has grown 50%, from approximately two to three million. While the average annual growth rate over this period was 2%, the chart below shows that there is fluctuation from year to year. Several factors can influence visitation, including the overall economy, travel costs and conditions, and vacation trends. Natural events can also play a role in influencing the number of visitors. For example, in 1988, visitation fell 15% in a single year as a result of the wildfires. In 1989, visitation quickly returned to pre-fire levels.

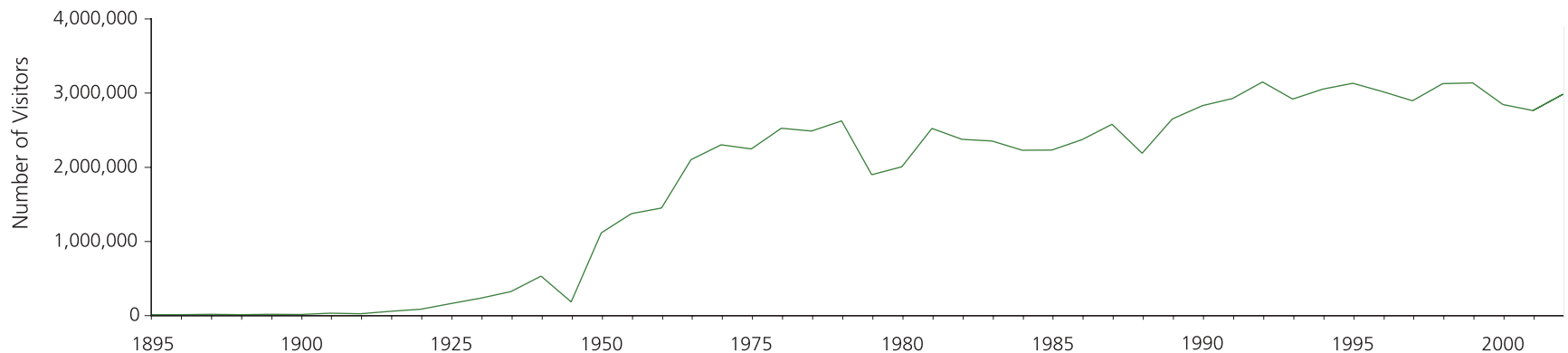
Visitation patterns

In many ways, today's visitors are similar to those who vis-

ited Yellowstone decades ago. The majority are American (93%), visit the park with their families (78%), travel in private vehicles (95%), and come to see sights like Old Faithful Geyser (85%), and to view the park's wildlife (93%). To accommodate diverse ethnic and national backgrounds, however, Yellowstone has increased its foreign language offerings and strives to recognize and accommodate cross-cultural values.

One significant change in visitation patterns has occurred in recent years; more people are visiting during winter months. Historically, summer visitors have accounted for 95% of visitation. However, winter visitation has grown rapidly, nearly doubling between 1975 and 2000 (from 70,000 to 140,000). As a result, the park has additional winter staffing and funding requirements.

Historical Visitation from 1895 to 2002



Current Park Operations

This business plan differentiates between two types of expenditures: Operations and Maintenance, and Investments. Operations and Maintenance requirements are those funds needed to carry out everyday operations at a park unit. Some examples include annual payroll costs, janitorial operations, and managing a telecommunications network. On the other hand, Investments are significant one-time costs incurred to fix current problems or provide for future park development. Investments may include projects such as a resource inventory necessary to establish a credible baseline before beginning a monitoring program, or constructing a new building.

The Business Planning Process

This section of the plan focuses on the Operations and Maintenance activities of the park. In order to describe park operations for this business plan, park activities were divided into five functional areas, which describe the five areas of business for which the park is responsible. These functional area distinctions are not necessarily congruent with divisions of park management—the intent is to capture groups of tasks in terms of their common elements rather than which divisions perform them. The five functional areas are:

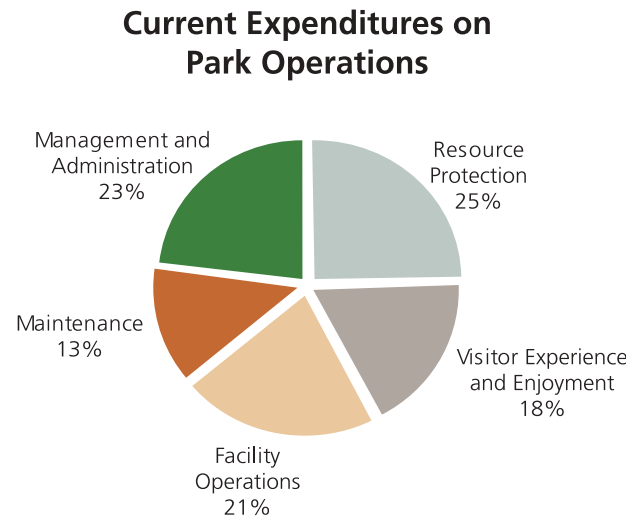
- Resource Protection
- Visitor Experience and Enjoyment
- Facility Operations
- Maintenance
- Management and Administration

These were then further broken down into 35 programs that more precisely describe park operations. Programs were general in order to cover a broad suite of activities that should be occurring in the park.

Next, a detail sheet was completed for each program. These forms described the day-to-day activities occurring in the park and the totality of financial need associated with them.

Statements of work were developed to describe the suite of activities encompassed by the program. Then operational standards were generated to describe the duties and responsibilities required to meet the critical functions of the program as stated in the statement of work. These standards were then used to determine the total financial resources required to perform the standard tasks of the program. The final step was to compare current park activities to the operational standards to identify the gaps between required and available resources.

The following pages discuss each of the functional areas in detail.



Resource Protection encompasses activities related to the management, preservation, and protection of the park's cultural and natural resources. These include research, restoration efforts, species-specific management programs, wildland fire management, archives and collections management, historic site protection, law enforcement, and information integration activities.

Visitor Experience and Enjoyment includes activities directly related to providing visitors with a safe and educational park experience. It includes all interpretation, visitor center management, interpretive media, in-park concessions management, fee collection, law enforcement, and visitor safety services.

Facility Operations includes activities required to manage and operate the park's infrastructure on a daily basis. Buildings, roads, trails, utilities, and campgrounds require a range of operational activities from basic sanitation to snow plowing to water testing.

Maintenance includes activities directed solely at prolonging the life of park assets and infrastructure through substantial repair, replacement, or rehabilitation of buildings, roads, trails, utilities, fleet vehicles, and equipment.

Management and Administration encompasses parkwide management and administrative support activities, including communications and external affairs activities, planning, human resource management, information technology, leadership, and financial management.

Resource Protection



Yellowstone is home to a free-ranging population of bison.

Yellowstone's unique biological and geological resources inspired its creation as the world's first national park in 1872. The park also recognizes the significance of its cultural resources, which range from archeological sites and artifacts to historic buildings and archives. Many of the park's resources extend beyond its boundaries, presenting constant challenges to their protection. Therefore, Yellowstone's Resource Protection programs rely on applied research and collaboration with external agencies and institutions as a foundation for an adaptive, ecosystem management approach.

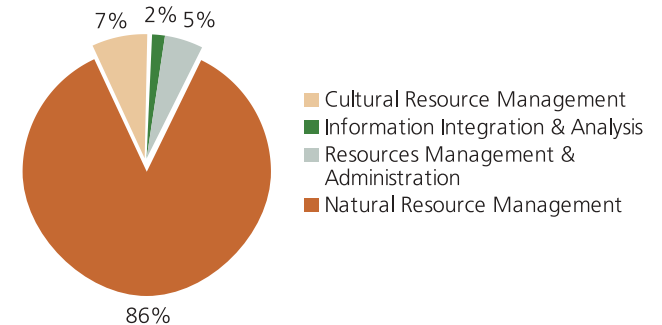
Resource Protection expenditures accounted for \$10.3M, or 25% of the park's FY02 operating budget of \$41.7M. Natural Resource Management was the largest program, representing 86% of FY02 Resource Protection expenditures. The four programs have identified \$13.5M in required funding, indicating a shortfall of \$3.3M, primarily occurring in the areas of Natural and Cultural Resource Management.

The Resource Protection functional area includes the Yellowstone Center for Resources and elements of the Resource Management and Visitor Protection, and Maintenance Divisions. Resource Protection includes the following programs:

Cultural Resource Management: This program protects the legacy of the park's American Indian and European-American inhabitation. Cultural resources staff research, monitor, protect, and restore 1,100 known archeological sites and 951 historic structures; only 2% of the park has been inventoried for such features. Cultural resources staff also operate the park's library, archives, and photo and museum collections, numbering some five million items. Yellowstone is the only national park whose archives have been designated a branch of the National Archives and

Yellowstone's Resource Protection programs rely on applied research and collaboration with external agencies and institutions as a foundation for an adaptive, ecosystem management approach.

**Resource Protection
FY02 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
187	\$13,549,365	128	\$10,256,792	(59)	(\$3,292,573)

Records Administration. Starting in 2004, cultural resources staff will operate the Heritage and Research Center, a new facility that will bring the park's ability to store those collections up to federal standards (a parkwide priority). The program has also increased efforts to develop productive relationships with the network of 26 federally-recognized tribes that have shown traditional association with Yellowstone. To support these functions, Cultural Resource Management includes subprograms in Archeology; Ethnography; Historic Landscapes and Structures; and Library, Museum, and Archives.

Because Yellowstone's heavy visitation requires extensive resource protection activities to prevent resource degradation resulting from everyday visitor use as well as from theft, destruction, and other illegal activities, Cultural Resource Management also supports a subprogram in Cul-

tural Resource Protection, primarily involving enforcement of regulations prohibiting collection of specimens.

In order to best protect the park's cultural resources, managers must not only know what resources exist in the park, but also understand them. Cultural resources staff inventory, monitor, and continually research the park's cultural resources, and produce a variety of publications on cultural resource issues and science—all functions performed within the Cultural Resource Research, Publications, and Events subprogram.

Information Integration and Analysis: Yellowstone's Spatial Analysis Center operates a Geographic Information Systems (GIS) lab. The center also provides Geographic Positioning System (GPS) equipment and expertise; trains park staff in collecting spatial data; acquires new data and makes it useful; provides technical support; engages in research such as thermophile inventories; and makes information available to park staff, outside agencies, and the public. GIS wildfire maps, for example, provide valuable real-time information for fire crews, resource managers, interpretive rangers, and public affairs staff.

Resource Protection Management and Administration: This program is comprised of two subprograms: Resource Management and Support, and Resource Planning. The former involves a broad spectrum of management and planning activities, with the overarching intent of developing, managing, coordinating, and supervising the Natural and Cultural Resource Management programs. Functions within this program include establishing overall goals; providing supervision; managing performance; providing safety, leadership and accountability; performing financial

and personnel management; procuring supplies; and providing clerical support. Through the Resource Planning subprogram, resource managers provide expertise on a wide range of resource management and planning issues for park- and servicewide activities and projects, develop long-range plans, and perform compliance duties.

Natural Resource Management: In addition to geologic wonders, Yellowstone's natural resources are biologically diverse, from top carnivores to fish to microorganisms. The park's Natural Resource Management subprograms generate and apply current scientific knowledge to guide a minimal intervention approach. Those subprograms include Air, Soils, and Geology; Backcountry and Wilderness Management; Bear Management; Bison Management; Elk and Other Ungulate Management; Fisheries and Aquatic Resources; Other Wildlife Management; Vegetation Management; Wildland Fire Management; and Wolf Management.

Natural Resource Management also supports a subprogram in Natural Resource Protection. This subprogram is responsible for implementing projects geared toward improving the quality of the park environment, monitoring visitor activity at wildlife traffic jams, conducting backcountry patrols, and enforcing resource-related park regulations. These include fishing and boating regulations, and rules against poaching wildlife, collecting antlers and other specimens, and vandalizing thermal features.

Natural resources staff also inventory, monitor, and continually research the park's natural resources and produce a variety of publications on natural resource issues and science within the subprogram of Natural Resource Research, Publications, and Events.

Different Input, Different Output

Yellowstone has recently completed two high-profile resource management planning processes, each lasting over a decade: one for wolf restoration and another for interagency bison management. Because of differences in the initial levels of financial support allocated for the projects, these plans have seen very different outcomes.

The wolf restoration plan received significant funding early in its development. This support permitted vital research in ecology, social issues, rancher compensation, and legal aspects before the NEPA planning effort began. Despite the controversies that arose when the wolves finally arrived, the program proceeded ahead of schedule and under budget, with most stakeholders ultimately satisfied with its management. The plan's scientific foundation made it legally defensible and expedited its implementation.

The interagency bison plan, however, received little funding in its early stages. This lack of support left planners with little science with which to begin the planning process, resulting in increased Environmental Impact Statement production costs. Furthermore, without this scientific basis up front, the plan's alternatives have proved highly contentious.

Visitor Experience and Enjoyment



Ranger-led talks are a key component of interpretation in Yellowstone.

Yellowstone's three million annual visitors come to the park for a variety of reasons: to see Old Faithful, to view wildlife, to visit the Grand Canyon of the Yellowstone, to spend time hiking in the backcountry, and to enjoy the park's winter activities. Park personnel play an important role in ensuring visitors have a safe and enjoyable time.

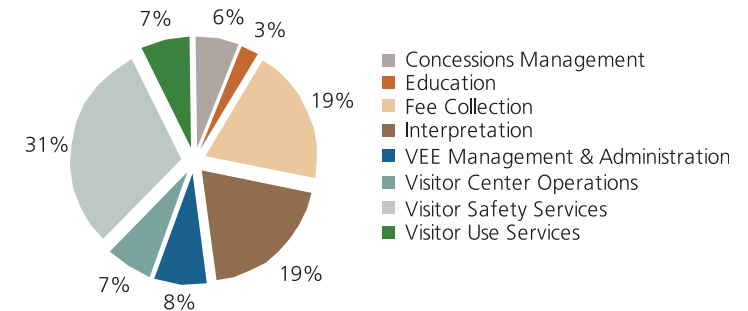
Visitor Experience and Enjoyment (VEE) expenditures accounted for \$7.3M, or 18% of the park's total FY02 available operating budget of \$41.7M. The largest programs in terms of expenditure were Visitor Safety Services (31%), Fee Collection (19%), and Interpretation (19%). The eight VEE programs have identified \$16.9M in required funding, indicating a shortfall of \$9.5M, primarily in the areas of Interpretation and Visitor Safety Services.

The VEE functional area includes aspects of the divisions of Interpretation, Business Management, and Resource Management and Visitor Protection. VEE includes the following programs:

Concessions Management: Yellowstone's Concessions Management program develops and administers 194 concessions authorizations to provide food and lodging services (2,225 guest rooms, 28 food and beverage operations, 21 gift shops, 11 grocery stores, 5 campgrounds); 3 medical clinics; employee dining rooms and dormitories; 7 vehicle service stations; a marina; livery operations for both frontcountry and backcountry; 4 public showers and laundries; and guided photography and hiking tours, among many others.

Education: Park staff develop and present curriculum-based programs for a wide audience of students, teachers, and the public. The park offers eight different education programs: *Exploring Yellowstone/ParKids*, an experiential, outdoor education, summer day program; *Expedition:*

Visitor Experience & Enjoyment
FY02 Expenditures by Program



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
262	\$16,863,889	160	\$7,328,830	(102)	(\$9,535,059)

Yellowstone!, a residential education program for 4th through 8th grades; *Camp Wildness*, a high school field camp to be offered starting in summer 2006; *Windows Into Wonderland*, electronic field trips via the Internet; a day-use program serving local school groups; a day-use program for non-school groups (Girl Scouts, Boy Scouts, 4-H programs, Elderhostel, and teachers); and curriculum-based teacher workshops. The Education program has identified high-priority funding required to roll out a new program designed to integrate research, resource management, and education.

Fee Collection: Park personnel are responsible for collecting and managing entrance, campground, and special use permit fees. Under the direction of a fee program manager, park rangers are responsible for collecting entrance fees at the park's five entrance stations and Bechler Ranger Sta-

The goal of interpretive programs and media is to encourage the development of a personal stewardship ethic and broaden public support for preserving park resources.

tion, campground fees at seven NPS campgrounds, and special use permit fees (fishing, boating, backcountry reservations, etc.). In FY02, Yellowstone's fee collection stations collected more than \$5.8M in entrance fees, \$400K in campground fees, and \$670K in special use fees.

Interpretation: The goal of interpretive programs and media is to encourage the development of a personal stewardship ethic and broaden public support for preserving park resources. Interpretive rangers present Yellowstone to visitors through formal interpretation, such as campfire and evening programs, talks, walks, hikes, and demonstrations; and through informal interpretation, including roving patrol, wildlife-induced traffic jam contacts, winter warming hut contacts, and junior ranger programs. Yellowstone's interpretive media infrastructure encompasses approximately 500 existing and planned outdoor exhibits, 41,000 square feet of existing and planned indoor exhibits, 100 publications, audiovisual systems in campground amphitheaters and visitor centers, a radio and TV broadcast system, and a collection of 78,000 still images and 1,400 hours of video.

Visitor Experience and Enjoyment Management and Administration: Staff oversee visitor experience programs, providing supervision, scheduling, training, budgeting, planning, safety leadership, and administrative support.

Visitor Center Operations: Yellowstone's interpretive rangers manage and staff the park's five primary visitor centers (Canyon, Fishing Bridge, Grant Village, Mammoth, and Old Faithful), four information stations (the Madison Museum, Museum of the National Park Ranger, Norris Geyser Basin Museum, and West Entrance contact station) and, during winter, four warming huts (Canyon, Fishing Bridge, Madison, and West Thumb). Approximately 2.1 million visitors, or 70% of all park visitors, used Yellowstone's visitor centers in FY02.

Visitor Safety Services: Yellowstone's law enforcement rangers are primarily responsible for providing safety and security for the park's visitors and infrastructure. Specific visitor safety programs include emergency medical services (275 ambulance transports in 2002); search and rescue (66 incidents in 2002); structural fire (450 alarms and 10 fires in 2002); and law enforcement. Yellowstone is an area of exclusive federal jurisdiction, meaning that within the boundaries of the park, Yellowstone's law enforcement personnel have the sole authority and responsibility of enforcing both federal and state criminal and civil laws and regulations. The Visitor Safety Services program has identified funding required to establish a 24-hour law enforcement presence in the park's eight developed areas (defined as those with overnight accommodations), build a structural fire program, and provide full emergency medical services coverage (all parkwide priorities).

Visitor Use Services: Yellowstone provides support services for visitors planning backcountry trips and completing park permit applications.



In FY2002, 2.1 million visitors passed through the park's busy visitor centers.

Visitor Feedback

Some of the greatest evidence of how Yellowstone's visitor experience and enjoyment programs affect people's lives is communicated in the hundreds of personal letters the park receives annually:

"I wish I could partake in Expedition: Yellowstone! over and over again...I started reflecting on my experience and it is encouraging and enlightening, as a teacher, to witness such bright and enthusiastic learners express their gratitude for the knowledge they have gained. Yellowstone is magical and these students have experienced and participated in its deepest magic. As a parent, I would give anything for my child to participate in this learning opportunity because of the massive rewards. The growth that these kids went through was truly astonishing."

—Mr. Shadrick, Teacher and Parent

"Rangers Trudy Patton and Carolyn Loren did a truly outstanding job on their evening presentations. It's truly heart warming to know that I (a taxpayer) have such exceptional employees."

—Jerry Brove, Visitor

"We took the geyser geology walk this morning with Shannon, one of the best guides we've had in our visits to the various national parks. She related beautifully to the group, was enthusiastic and knowledgeable, and made our walk a great learning experience."

—Mindy and Hal Sussman, Visitors



The park operates six wastewater treatment facilities that must meet state and federal requirements.

Yellowstone's facilities and infrastructure are distributed across seven districts that are geographically separated over 2.2 million acres.

Facility Operations

Yellowstone's facilities and infrastructure are distributed across seven districts that are geographically separated over 2.2 million acres. Park staff oversee the daily operation of campgrounds, buildings, restroom facilities, grounds, roads, trails, transportation systems, and utilities.

Facility Operations expenditures accounted for \$9M, or 21% of the park's total FY02 available operating budget of \$41.7M. The largest programs in terms of expenditure were Utilities Operations (31%), Roads Operations (20%), and Buildings Operations (13%). The nine Facility Operations programs have identified \$12.4M in required funding, indicating a shortfall of \$3.4M, primarily in the areas of Roads and Buildings Operations.

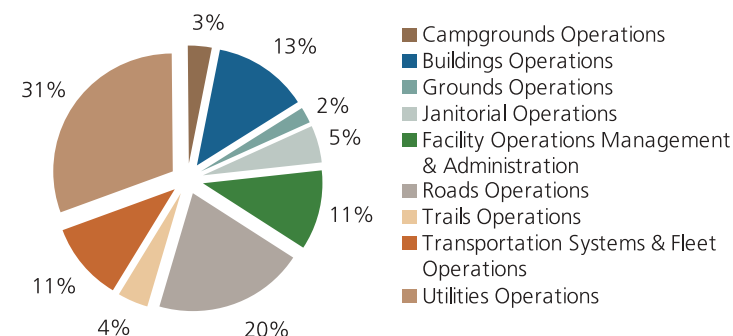
The Facility Operations functional area includes aspects of the divisions of Maintenance; Resource Management and Visitor Protection; and Business Management. Facility Operations includes the following programs:

Campgrounds Operations: The park operates 7 campgrounds, with 454 campsites and their associated restrooms, picnic tables, fire grates, and bear-resistant food storage boxes. A concessioner operates the remaining five campgrounds. The park also manages 52 picnic areas and 7 outdoor amphitheaters.

Buildings Operations: Yellowstone owns 1,541 buildings. Concessioners (under park oversight) operate and maintain 831 of these facilities. The park is responsible for the remaining 710 facilities, including 454 housing units. Park-operated facilities include administrative buildings, visitor centers, wastewater treatment plants, maintenance facilities, a jail, and other support buildings. Park staff perform a wide variety of interior and exterior tasks required to keep these structures operational.

Grounds Operations: Park personnel maintain approximately 200 acres of developed grounds. Work activities

**Facility Operations
FY02 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
160	\$12,356,109	123	\$8,953,951	(36)	(\$3,402,158)

such as mowing, trimming, pruning, irrigating, and sodding ensure that planted turf, shrubs, trees, and other plants remain healthy. Grounds Operations for Yellowstone Lake (87,000 acres) include the inspection of docks, gangways, and bulkheads; control of wave erosion; and installation of navigation networks.

Janitorial Operations: During the summer season, up to 600 people per hour can use a single park restroom, requiring staff to replace approximately 50 rolls of toilet paper daily. This use creates a significant workload for staff who operate 104 vault toilets; restrooms in 9 visitor centers and contact stations; comfort stations; and toilet facilities in 53 administrative buildings, all requiring supplies, daily cleaning, and monthly deep cleaning. Staff also regularly vacuum floors, wash windows, empty trash cans, and provide other janitorial services.

Facility Operations Management and Administration:

Management provides executive oversight and administrative support for the facilities operations program, and is responsible for the overall planning, organization, direction, and budgeting of all facility operations.

Roads Operations: Park staff strive to ensure that the park's 466 miles of roads are safe, regularly checking for hazards such as rockfall, fallen trees or limbs, potholes, and washed-out shoulders. Personnel also create and install signs. Yellowstone's rugged conditions require season-specific activities to make the park accessible to visitors, including installing 7,000 snow poles; grooming 184 miles for travel by oversnow vehicles; performing avalanche control; plowing and sanding during winter; and conducting spring snow removal activities to prepare roads for car travel.

Trails Operations: Yellowstone maintains approximately 1,000 miles of interconnected backcountry trails. Activities involve inspecting treadway, trail structures, and hazards; cleaning drainage structures; and removing rockfall and debris. The park has approximately 15 miles of boardwalks that provide access to numerous features in popular geyser basins, waterfalls, and other attractions. These should be regularly inspected, swept, and maintained.

Transportation Systems and Fleet Operations: Yellowstone's Transportation Systems include a large, diverse vehicle fleet (870 units), more than 90 horses and mules, and contract aviation services.

- **Vehicle Fleet:** Fleet managers purchase and assign vehicles to park staff. Most units are outdated and need replacing. Managers are developing a cyclic replacement program that reflects recommendations from major fleet operators in the private sector.

- **Aviation:** All aircraft used at Yellowstone are contracted or rented through the Interior Department's Office of Aircraft Services Aircraft Rental Agreement. In 2002, 900 helicopter flight hours supported wildland fire operations, and 50 helicopter hours supported wildlife capture operations, search and rescue and law enforcement activities, and administrative projects. Over 1,100 fixed-wing hours are flown each year in support of these activities.
- **Horses and Mules:** Corral operations personnel identify animals for replacement, select new stock, and provide all feed and training.

Utilities Operations: Utilities Operations include solid waste, electricity, water, and wastewater operational activities.

- **Solid Waste:** This operation collects, transports, and disposes of park-generated garbage, recyclables, and other waste. Yellowstone generates approximately 3,000 tons of solid waste per year.
- **Electricity:** The park provides electricity to all buildings and pays its electricity providers an average of \$849K per year. In addition, Yellowstone operates 21 generators at 13 locations, as well as several photovoltaic systems.
- **Water Systems:** The park ensures uninterrupted service from 15 public water and 6 nonpublic water systems. Over 300 million gallons of water are treated annually and distributed through 600,000 feet of service-distribution lines with a storage capacity of over 7.5 million gallons of potable water.
- **Wastewater Systems:** Yellowstone operates a tertiary wastewater facility, 5 secondary treatment facilities, 32 sewage lift stations, and 21 septic systems with subsurface drain fields. All wastewater systems are monitored and tested to meet federal and state requirements.

Innovation

Yellowstone strives to implement innovative measures that help the park meet a primary mission—protecting the resources.

Janitorial Operations: Data from a recent study of the park's janitorial products revealed toxicity and health risks, prompting the park to reduce its 130-product inventory to 10 "green" products. Today's procurement policy bans the use of "non-green" products, and highlights Yellowstone as a leader in point source pollution prevention. In addition, it has saved the park 15% in supply costs.

Transportation Systems and Fleet Operations: In 1995, Yellowstone's fleet received its first bio-diesel truck, fueled entirely by an alternative energy source produced from rapeseed oil. After extensive performance and emission testing in collaboration with the Montana Department of Environmental Quality, the Department of Energy, and the University of Idaho, Yellowstone converted its entire fleet of 300 diesel-powered vehicles to bio-diesel.

Electrical Operations: Yellowstone recently installed a 7-kilowatt photovoltaic (solar electric) array at Lamar Buffalo Ranch. The array provides roughly 70% of the buildings' energy needs, saving approximately 60% on fuel each year. Additionally, in 2002 Yellowstone became the first national park to test a demonstration fuel cell to operate the West Entrance station.

Maintenance



Road construction and other infrastructure improvements are ongoing needs that require extensive planning and considerable financial investment.

Yellowstone's Maintenance function is responsible for a vast amount of infrastructure, facilities, and fleet units that must receive regular repair and maintenance. In some cases, the park maintains its own systems (e.g., roads) as well as those of surrounding communities, as there are few county, city, or state-provided services locally available. Park personnel confront unique challenges created by the large geographic separations between park facilities, often travelling long distances to service campgrounds, buildings, restroom facilities, grounds, roads, trails, transportation systems, and utilities.

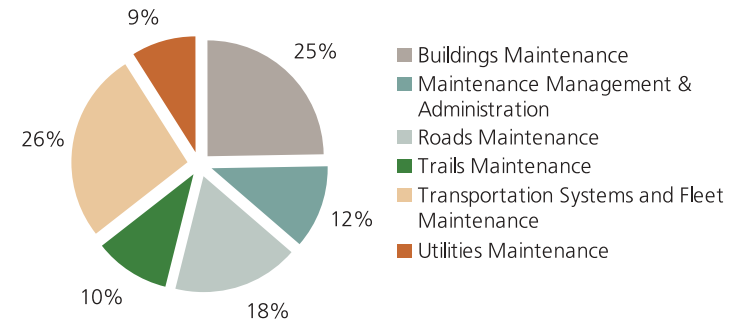
Maintenance expenditures accounted for \$5.5M, or 13% of the park's total FY02 available operating budget of \$41.7M. The largest programs in terms of expenditure were Transportation Systems and Fleet Maintenance (26%); Buildings Maintenance (25%); and Roads Maintenance (18%). The six Maintenance programs have identified \$7.7M in required funding, indicating a shortfall of \$2.2M, primarily in the area of Roads Maintenance.

The Maintenance functional area includes aspects of the divisions of Maintenance; Resource Management and Visitor Protection; and Business Management. Maintenance includes the following programs:

Buildings Maintenance: As stated earlier, Yellowstone owns 1,541 buildings (710 maintained by NPS staff, 831 by concessioners). Ideally, the park strives to implement cyclic, repair, rehabilitative, and preventive maintenance measures to ensure that all buildings are preserved and maintained in a manner that allows each structure to reasonably meet or exceed its life expectancy. Managers are currently focusing on obtaining additional funding that will allow the park to fulfill the following categories of Buildings Maintenance:

- *Cyclic:* These maintenance actions are performed on a regular, scheduled basis and include roof repair, exterior

**Maintenance
FY02 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
104	\$7,720,998	77	\$5,532,326	(27)	(\$2,188,672)

- painting, wood floor refinishing, and carpet replacement.
- *Repair and rehabilitation:* These actions are performed when aged facilities require major repair or rehabilitation. Examples include installation of roof anchors, seismic repairs, replacement of heating systems, and asbestos and lead abatement.
- *Preventive:* These maintenance actions limit the future amount of rehabilitation needed, such as annual servicing of heating boilers and furnaces.

Maintenance Management and Administration: Managers provide executive oversight and administrative support for the maintenance program, and are responsible for the overall planning, organization, direction, budgeting, and coordination of all maintenance activities.

Roads Maintenance: Yellowstone's Roads Maintenance program endeavors to ensure that the life expectancy of over 466 miles of roads is prolonged as long as possible

Maintenance expenditures accounted for \$5.5M, or 13% of the park's total FY02 available operating budget of \$41.7M.

with proper preventive maintenance. As the park partners with the Federal Highway Administration to repair and rehabilitate stretches of road each year, managers continue to focus on improving the annual upkeep of both old and new roads. Park personnel have established a preventive maintenance program that would fully support activities such as chip sealing, overlays, and ditch repair. Managers have identified Roads Maintenance as a parkwide priority, and are currently attempting to identify additional operations funds to complete these tasks.

Trails Maintenance: YNP conducts numerous maintenance activities to improve and prolong the life of some 1,000 miles of interconnected backcountry and front-country trails and boardwalks. Maintenance activities reduce or correct damage caused by age, erosion, and wear; increase user safety; and reduce visitor impacts around sensitive resources. These activities include repairing and reconstructing treadway; installing drainage and erosion control devices; repairing bridges, walls, and steps; and rehabilitating abandoned trail segments.



Yellowstone's "four-footed fleet," essential to backcountry operations, requires high-quality care and maintenance.

Transportation Systems and Fleet Maintenance: Yellowstone's Transportation Systems are in need of a more frequent and responsive maintenance program.

- *Vehicle Fleet:* The goals of Yellowstone's Fleet Maintenance program are to maximize vehicle availability, reduce costs, and improve fleet reliability. Managers plan to implement a more proactive and predictive maintenance program, augmented by a fleet rejuvenation plan. A predictive maintenance program forecasts part failures, allowing repairs to be scheduled around the operators' needs and parts availability, thus reducing vehicle downtime.
- *Horses and Mules:* Corral maintenance operations ensure high health standards for animal stock. Horse and mule health care includes regular vaccinations, worming, and first aid. Corrals personnel shoe horses three times each year and maintain saddles, tack, and other equipment.

Utilities Maintenance: The goal of the Utilities Maintenance program is to ensure that preventive, repair, and rehabilitative maintenance measures are applied to over 100 electrical, water, and wastewater systems.

- *Electrical Systems:* The park's electricians are charged with maintaining 21 generators in 13 locations. Preventive maintenance includes oil changes, valve adjustments, and spark plug replacements. Repair and rehabilitation include re-fusing power lines, repairing transfer switches and distribution lines, and rebuilding generators. Electricians also maintain structural electrical systems, prolonging system life and ensuring occupant safety.
- *Water and Wastewater Systems:* Maintenance activities include cyclic replacement of equipment and system components such as laboratory equipment, pumps, chemical feed pumps, filters, meters, treatment motors, collection and distribution lines, valves, and domestic piping. Personnel also perform everyday repair activities that restore water systems to their intended standards of operation.

Necessity is the Mother of Invention

Personnel embrace this motto as they continually overcome hurdles presented by diverse and geographically-separated service requirements and personnel needs. Examples of employees' creative solutions include:

Establishing partnerships: A large proportion of outdoor maintenance must occur during summer months, creating a significant spike in workload for staff. In response, managers have often utilized volunteer labor. In FY02, district personnel solicited 2,000 hours of help from students at three colleges to assist with repair and rehabilitation of docks and cabin restoration. Additionally, trail crews train and supervise volunteers from the Student Conservation Association. Minimum-wage Youth Conservation Corps employees also assist with backcountry trails maintenance each year. In FY02, these low-cost laborers contributed 10,400 hours to trail maintenance.

Innovative designs to decrease costs: Maintenance personnel continually analyze supply expenditures and find ways to minimize costs. For example, Lake personnel decreased maintenance requirements for aids to navigation (material cost range: \$200–\$20,000) by creating sturdier units out of agricultural water tanks (material cost: \$150).

Management and Administration



Communication towers must often be situated in remote locations due to the park's rugged terrain.

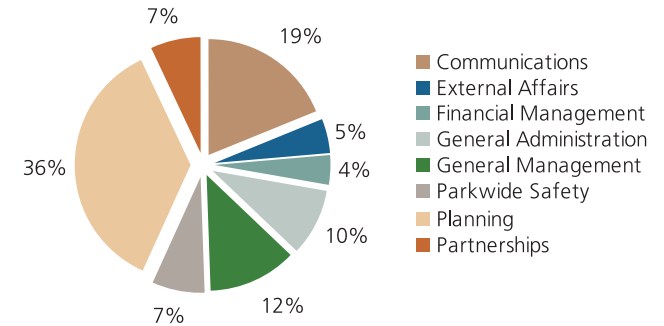
This functional area encompasses parkwide administrative, managerial, and support functions, as well as safety and planning. Because the park is a symbol of America's treasures, public scrutiny of management decisions is intense. The complexity of Yellowstone's operations drives the activities of the park's Management and Administration (M&A) function. For example, new hires require voicemail access, computer services, and training. Providing these services is complicated due to the distance between park facilities and the number of park divisions.

M&A expenditures accounted for \$9.6M, or 23% of the park's total FY02 available operating budget of \$41.7M. The largest program expenditures were in Planning (36%) and Communications (19%). The eight programs have identified \$13.9M in required funding, indicating a shortfall of \$4.3M, primarily in the areas of Communications and Planning.

The M&A functional area includes aspects of the divisions of Administration, Interpretation, and the Office of the Superintendent. The following programs are included:

Communications: Yellowstone requires a wide array of Communications services to operate effectively. In FY02, the park's official web site recorded 28 million hits, providing a "virtual park experience" to visitors worldwide. Additionally, the park provides telephone services and training to over 800 park staff. Leased services and maintenance contracts for park-owned voice and data services cost \$32,000 monthly. The communications program also strives to provide 24-hour, year-round dispatch for law enforcement rangers, fire departments, ambulances, and all other park staff. Communications personnel maintain the park's radio system (valued at over \$1.9M) to provide seamless communication among park staff in all districts for public safety and operational purposes, and protect parkwide as-

**Management & Administration
FY02 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
156	\$13,932,110	109	\$9,607,331	(47)	(\$4,324,779)

sets by installing and maintaining alarm systems. Finally, computer services support staff strive to meet the park's computer and networking needs.

External Affairs: Developing and maintaining positive relationships with constituents through the release of public information is crucial. Park staff attend public meetings in gateway communities in Montana, Wyoming, and Idaho, to provide an avenue for communication between park managers and local residents. This dialogue has been highlighted as part of a parkwide priority. The external affairs staff handles approximately 25 Freedom of Information Act requests annually. Planning and conducting special events also requires considerable staff involvement given the high-profile nature of Yellowstone's events. Addressing the approximately 3,500 external media requests per year necessitates that personnel stay informed on all issues affecting the park and respond to media requests with press releases, official statements, interviews, and film footage. A variety of

Because the park is a symbol of America's treasures, public scrutiny of management decisions is intense.

written, telephone, and walk-in requests for information are also handled. Finally, staff manages commercial filming within the park's boundaries, which requires researching approximately 275 requests each year, processing permits if appropriate, and monitoring film crew activities.

Financial Management: Personnel perform all financial planning and tracking activities, including formulation of Yellowstone's annual appropriated base budget request to Congress; execution of the park's total budget, including training users of the accounting systems, processing transactions, reporting functions, and internal audits; and long-range financial planning.

General Administration: Staff provide administrative services to assist in accomplishing Yellowstone's mission. Procurement and supply staff order and distribute supplies and services for all park divisions. Property staff are charged with tracking property as well as disposing of unwanted assets through General Services Administration sales. Administrative personnel receive and distribute approximately 140,000 pieces of mail annually, and receive and fill requests for 2.8 million photocopies per year. Additional services include folding, binding, and laminating documents, and maintaining central files.

General Management: Yellowstone's management team provides executive oversight for the park, including increasing the capabilities of park staff through human resource functions such as recruitment, employee relations, payroll and benefits administration, and training. Management team activities exist to provide the park with strategic leadership in meeting its mission, including priority-setting and program direction. General Management also includes promoting recycling efforts, pollution prevention, waste reduction, and related education through the Greening of Yellowstone initiative.

Parkwide Safety: Yellowstone strives to prevent accidents or harm from coming to people in the park. Ensuring the safety of visitors and employees includes minimizing injuries and providing employee safety training in dealing with hazardous communications, confined spaces, and blood-borne pathogens. Hazardous waste management is another important component of ensuring human safety. Until an environmental safety group is created to oversee the park's hazardous materials program, these duties will continue to be performed collaterally. The park is currently working on a plan to strengthen this function in order to address items identified in a 2002 environmental audit.

Partnerships: Personnel undertake activities pursuant to developing and establishing formal partnerships to achieve the park's mission. This occurs in collaboration with other government agencies, universities, volunteer groups, and nonprofit institutions.

Planning: The Planning program includes infrastructure planning, landscape planning, and parkwide planning activities.

- *Infrastructure Planning:* Maintenance and new capital projects require pre-design, site analysis, and compliance documentation.
- *Landscape Planning:* Yellowstone's landscape architectural staff provide planning and design for historic landscapes, park roads, scenic overlooks, and visitor facility landscapes, all of which require special consideration of Yellowstone's fragile natural and cultural resources.
- *Parkwide Planning:* Park staff address legal challenges, ensure compliance with various laws and policies, and manage the accessibility program. Additionally, personnel coordinate internal planning efforts and work with external entities to address issues facing the park.

Reducing Telecommunications Costs

The telecommunications team is constantly reviewing operations for opportunities to increase efficiency. While each change saves a relatively minor dollar amount, the savings over time are measurable.

The installation of the Private Branch Exchange (PBX) in the 1980s is one example. This equipment allows the park to provide its own service to developed park areas and discontinue paying telecommunications providers for that service. The remainder of the park has continued to lease phone service at an annual cost of approximately \$384K. The park is currently running 632 lines on the PBX. If the entire park depended on leasing service, the yearly bill would be close to \$750K.

Another good example is the installation of the Pair Gain 32 system in 1997. For each phone line privately provided, the park was charged \$40 per month. In 1997, the telecommunications team discovered new technology that would allow them to run 32 phone lines on one channel with a Pair Gain 32 system. This allowed them to disconnect another 23 phone lines the park was leasing. As a result, the total cost per month was reduced from \$1,000 to \$80. The total savings per year from this act alone totals \$11,040.

Financials

Summary Financial Statement

In FY02, Yellowstone spent \$41.7M on Operations and Maintenance and \$13.3M on Investments. These pages describe Yellowstone’s financial status in FY02, highlighting the park’s Operations and Maintenance (O&M) expenditures and requirements. The park described its resource requirements in the context of a five-year time horizon.

As seen at the bottom of the table on the opposite page, Yellowstone requires \$64.4M in Operations and Maintenance funding to fully meet its mission. In FY02, the park had \$41.7M in available O&M funding. The difference between these required and available resources represents a deficit of \$22.7M. This deficit amounts to 35% of the required O&M budget. In terms of staff, the park had 597.3 FTE in FY02, while the required FTE is 867.8—a deficit of 270.6 FTE. Yellowstone’s percent of deficit relative to required resources is consistent with the deficits identified by other parks that have completed business plans. This plan is a measure of the financial and human resources required for Yellowstone to fulfill its mandates and meet standards. It is not a budget request.

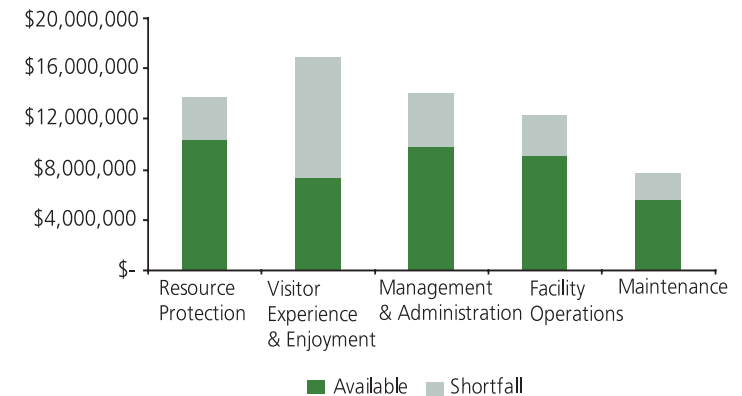
Funding gaps and strategic priorities

As the table on the opposite page and the chart to the right show, all functional areas have identified a funding deficit. The deficit in Visitor Experience and Enjoyment (101.7 FTE and \$9.5M) is the primary driver of the overall deficit. This functional area accounts for 42% of Yellowstone’s total deficit. The individual programs with the greatest deficits were Visitor Safety Services (\$5.6M) and Interpretation (\$1.4M).

FY02 fund sources

The pie chart to the left describes the sources of the park’s FY02 expenditures: appropriated base, appropriated non-

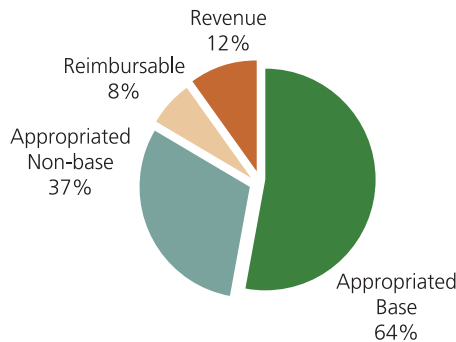
FY02 Required Funds by Functional Area



base, reimbursable, and revenue. In FY02, appropriated base dollars funded 64% of Operations and Maintenance activities at Yellowstone. Appropriated non-base funds provided over one-third of the park’s O&M expenditures in FY02.

In the financial statement on the opposite page, the columns labeled “appropriated” and “non-appropriated” show fund sources by program. Fund sources vary slightly by function. Of the appropriated dollars, the Visitor Experience and Enjoyment function received the highest percentage of base funding (70%), while the Resource Protection function received the highest percentage of non-base funding (37.1%). The latter is likely due to the fact that Yellowstone periodically receives one-time non-base appropriations for wildland fire operations.

FY02 Expenditures by Fund Source



FUNCTIONAL AREAS AND PROGRAMS	REQUIRED		AVAILABLE				SURPLUS/(DEFICIT)			
	FTE	Funds	APPROPRIATED		NON-APPROPRIATED		TOTAL			
			Base	Non-base	Reimbursable	Revenue	FTE	Funds		
RESOURCE PROTECTION										
Cultural Resource Management	24.9	\$1,809,614	\$573,856	\$142,039	\$8,270	\$12,010	12.9	\$736,175	(12.0)	(\$1,073,439)
Information Integration and Analysis	4.5	\$297,272	\$166,999	\$9,987	\$385	\$850	2.2	\$178,221	(2.3)	(\$119,051)
Resource Protection Mgmt. and Administration	16.6	\$1,275,250	\$520,721	\$3,455	\$687	\$17,043	6.5	\$541,906	(10.2)	(\$733,344)
Natural Resource Management	140.5	\$10,167,229	\$4,441,514	\$3,603,710	\$496,108	\$259,157	106.3	\$8,800,490	(34.2)	(\$1,366,740)
Subtotal	186.5	\$13,549,365	\$5,703,090	\$3,759,192	\$505,450	\$289,060	127.9	\$10,256,792	(58.6)	(\$3,292,573)
VISITOR EXPERIENCE AND ENJOYMENT										
Concessions Management	8.6	\$555,601	\$425,766	\$6,176	\$20,709	\$12,811	8.3	\$465,462	(0.4)	(\$90,139)
Education	14.0	\$1,032,205	\$95,906	\$25,210	\$68,786	\$630	3.6	\$190,532	(10.4)	(\$841,673)
Fee Collection	37.0	\$1,647,888	\$359,330	\$23,260	\$40,009	\$1,003,711	37.1	\$1,426,309	0.1	(\$221,578)
Interpretation	46.1	\$2,837,726	\$1,064,731	\$98,896	\$148,027	\$103,232	34.6	\$1,414,887	(11.5)	(\$1,422,839)
VEE Management and Administration	17.1	\$1,339,931	\$528,152	\$4,583	\$283	\$21,394	7.6	\$544,412	(9.5)	(\$785,518)
Visitor Center Operations	21.5	\$983,036	\$400,908	\$30,725	\$55,737	\$7,622	16.6	\$494,992	(4.9)	(\$488,043)
Visitor Safety Services	103.1	\$7,897,494	\$1,933,635	\$143,629	\$42,856	\$137,462	40.5	\$2,257,582	(62.7)	(\$5,639,912)
Visitor Use Services	14.8	\$570,009	\$314,581	\$18,265	\$90,840	\$100,968	12.3	\$524,654	(2.5)	(\$45,356)
Subtotal	262.1	\$16,863,889	\$5,123,009	\$350,745	\$467,247	\$1,387,829	160.42	\$7,328,830	(101.7)	(\$9,535,059)
FACILITY OPERATIONS										
Campgrounds Operations	9.1	\$320,911	\$152,379	\$25,678	\$45,178	\$66,233	5.8	\$289,469	(3.3)	(\$31,442)
Buildings Operations	22.3	\$2,056,827	\$764,609	\$67,507	\$210,958	\$132,344	14.8	\$1,175,418	(7.5)	(\$881,409)
Grounds Operations	5.2	\$241,058	\$128,354	\$35,780	\$26,731	\$9,472	4.5	\$200,337	(0.8)	(\$40,721)
Janitorial Operations	16.5	\$611,070	\$282,648	\$24,037	\$100,484	\$29,689	13.5	\$436,859	(3.0)	(\$174,211)
Facility Operations Management and Administration	16.6	\$1,147,672	\$851,967	\$16,915	\$80,100	\$45,044	16.5	\$994,026	(0.1)	(\$153,646)
Roads Operations	33.5	\$2,624,355	\$1,343,814	\$49,674	\$272,997	\$125,180	26.3	\$1,791,666	(7.2)	(\$832,689)
Trails Operations	12.8	\$641,738	\$158,856	\$67,553	\$29,815	\$65,443	7.7	\$321,667	(5.1)	(\$320,070)
Transportation Systems and Fleet Operations	13.0	\$1,470,037	\$782,785	\$132,160	\$31,190	\$15,766	6.3	\$961,901	(6.7)	(\$508,137)
Utilities Operations	30.9	\$3,242,441	\$794,537	\$135,441	\$732,565	\$1,120,067	28.0	\$2,782,610	(2.9)	(\$459,832)
Subtotal	160.0	\$12,356,109	\$5,259,950	\$554,745	\$1,530,019	\$1,609,238	123.47	\$8,953,951	(36.5)	(\$3,402,157)
MAINTENANCE										
Buildings Maintenance	20.1	\$1,752,654	\$939,565	\$332,722	\$152,289	-\$20,856	17.0	\$1,403,720	(3.1)	(\$348,934)
Maintenance Management and Administration	11.1	\$746,863	\$543,450	\$33,280	\$59,409	\$16,774	10.3	\$652,913	(0.8)	(\$93,950)
Roads Maintenance	23.2	\$1,648,102	\$518,726	\$193,962	\$31,466	\$173,841	14.6	\$917,996	(8.6)	(\$730,106)
Trails Maintenance	14.8	\$917,480	\$186,171	\$158,757	\$27,929	\$200,993	10.3	\$573,850	(4.5)	(\$343,631)
Transportation Systems and Fleet Maintenance	24.0	\$1,972,727	\$1,317,552	\$23,604	\$108,160	\$36,658	18.7	\$1,485,974	(5.3)	(\$486,754)
Utilities Maintenance	10.5	\$683,172	\$204,792	\$27,151	\$186,506	\$79,424	5.7	\$497,874	(4.7)	(\$185,298)
Subtotal	103.6	\$7,720,998	\$3,710,256	\$769,477	\$565,759	\$486,834	76.57	\$5,532,326	(27.0)	(\$2,188,672)
MANAGEMENT AND ADMINISTRATION										
Communications	40.4	\$3,102,979	\$1,775,519	\$13,778	\$320	\$60,548	29.9	\$1,850,165	(10.6)	(\$1,252,815)
External Affairs	10.4	\$739,693	\$387,020	\$59,934	\$18,093	\$887	6.1	\$465,935	(4.3)	(\$273,758)
Financial Management	11.0	\$697,390	\$345,809	\$1,737	\$6,417	\$35,459	6.8	\$389,421	(4.2)	(\$307,969)
General Administration	19.8	\$1,165,591	\$864,850	\$39,135	\$13,741	\$22,738	13.8	\$940,464	(6.0)	(\$225,126)
General Management	26.8	\$1,938,096	\$977,727	\$116,876	\$25,977	\$68,543	16.5	\$1,189,123	(10.4)	(\$748,973)
Parkwide Safety	12.4	\$921,739	\$569,138	\$42,204	\$32,781	\$55,584	9.9	\$699,707	(2.5)	(\$222,033)
Partnerships	12.1	\$653,886	\$269,636	\$43,611	\$52,566	\$157,942	11.2	\$523,755	(1.0)	(\$130,131)
Planning	22.7	\$4,712,735	\$652,228	\$2,243,912	\$91,436	\$561,186	14.9	\$3,548,762	(7.8)	(\$1,163,974)
Subtotal	155.7	\$13,932,110	\$5,841,927	\$2,561,187	\$241,332	\$962,886	108.9	\$9,607,331	(46.7)	(\$4,324,778)
Grand Total	867.8	\$64,422,471	\$25,638,232	\$7,995,346	\$3,309,807	\$4,735,846	597.3	\$41,679,231	(270.6)	(\$22,743,240)

This financial statement has been prepared from the books and records of the National Park Service in accordance with NPS accounting policies. The resources available reflect the total Operations and Maintenance expenses incurred by the park during FY02. The resources required represent the funding needed to operate the park while fully meeting operational standards as defined in business plan supporting documentation. Program requirements are presented as a five-year planning tool based on salary and wage tables from the same fiscal year, given current resource inventories and current park infrastructure. Changes resulting from one-time projects and capital improvements (e.g., Investments) may impact the operational requirements presented.

Investment expenditures for capital improvements or other one-time projects are not accounted for in this statement, which presents the available and required resources only for O&M activities. See page 30 for more information.

The value of donated materials and in-kind services is not included as an available resource in this statement because these materials and services are not solely used for required operations. See page 28 for information on the valuation of work performed by volunteers.

If the shortfall in FTE were mitigated through hiring additional people, management overhead costs would increase proportionately.

The deficit in FTE for the Natural Resource Management program is actually 28.5. Bison and Fisheries programs received funding in FY02, but many positions remained unfilled for some part of the year, understating the available FTE.

Volunteer Analysis



Volunteers are vital to the park's resource programs.

The Volunteers In Parks (VIP) program was established in 1970 to provide a means by which the National Park Service can accept and utilize voluntary help and services from the public in a way that is mutually beneficial to the NPS and the volunteer. VIPs are an important resource at Yellowstone National Park. While there are regulations that restrict the type of work volunteers can do, the time they donate is vital to helping the park accomplish its mission.

The value of volunteers

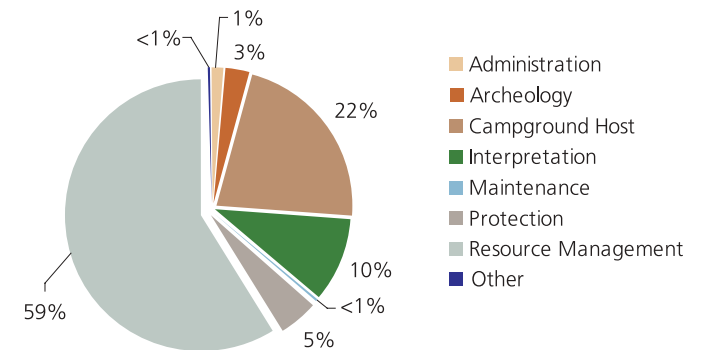
In FY02, 444 VIPs contributed a total of 88,088 hours to Yellowstone, comprising a net benefit to the park of \$1.36M. This is calculated by valuing the volunteer hours at \$16.05 (the national average calculated by the NPS), and subtracting the costs of managing and housing the volunteers. As Yellowstone is a large park in a remote area of the country, the ability to provide housing for volunteers is a limiting factor. For example, if a volunteer lives in Gardiner, Montana, but is needed at the Fishing Bridge Visitor Center at Yellowstone Lake, housing must be supplied by the park because it would take two hours or longer to drive this distance. In FY02, VIP housing costs totaled \$42,000. VIPs are also reimbursed for costs incurred, but this is a comparatively minor expense.

Areas benefiting from VIPs

The chart to the right shows the eight servicewide categories to which the VIP hours are allocated. In FY02, volunteers donated their time in the following ways:

- **Resource Management:** The majority of park volunteer hours (59%) contributed to resource-related projects such as wolf studies, fisheries data collection, and geothermal inventories.
- **Campground Hosts:** Campground hosts contributed 19,306 hours, or 22% of the total. By living at the seven campgrounds run by the park, they served as points of

FY02 Volunteer Hours by Category



contact for campers and park staff, assisted in disseminating information, and handled routine problems. They also performed light maintenance and notified park staff of campground needs.

- **Interpretation:** Interpretation hours composed 10% of the total and were mainly used to run the Museum of National Park Ranger during the summer. Volunteers also assisted interpretive rangers at visitor centers during busy periods.
- **Protection:** The 4,336 hours shown in this category primarily reflect time spent in the backcountry offices answering questions and helping visitors fill out permits.
- **Others:** The remaining 4% (3,782 hours) was spent on archeological, administrative, and maintenance activities. While maintenance personnel utilized help from the Youth Conservation Corps, these hours are not reflected here because the participating individuals received minimum wage. Therefore, they did not qualify as volunteers.

Government Performance and Results Act

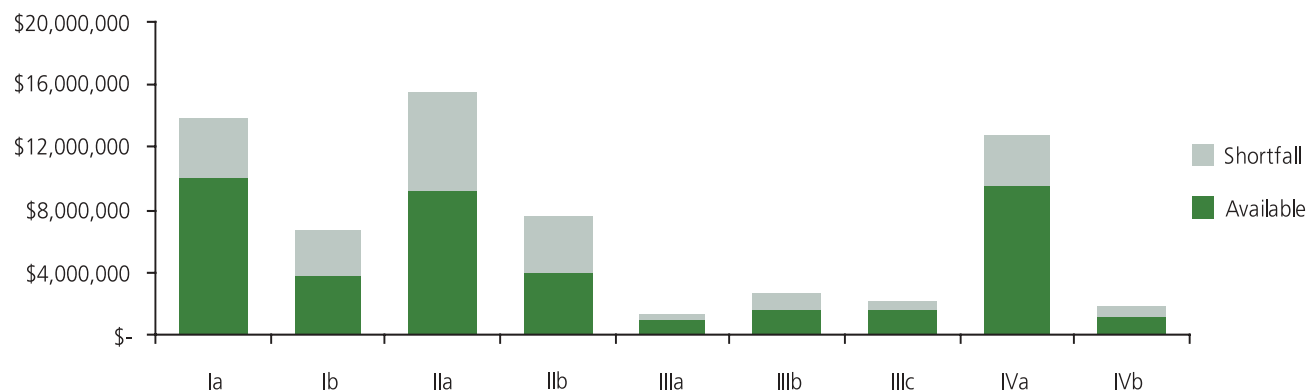
Congress passed the Government Performance and Results Act (GPRA) of 1993 to enforce a greater degree of accountability for mission accomplishment, and to stimulate efficient, effective practices in federal agencies. GPRA mandates federal agencies to define performance goals and track their ability to meet these goals. With a focus on outcomes rather than efforts, GPRA provides a tool for tracking the effectiveness of spending within particular programs. This in turn facilitates management decisions regarding optimal allocation of park funding. The following chart shows how Yellowstone chose to distribute its resources across the four GPRA goals during FY02:

- **Goals I and II:** The National Park Service's dual mission to preserve resources and provide for visitor enjoyment is accounted for by GPRA goal categories I and II. The majority of Yellowstone's efforts, approximately 64%, were dedicated to resource preservation and public enjoyment activities. These programs are central to fulfilling the park's mission and require further resources; fully 74% of

the funding shortfall is attributed to Goals I and II.

- **Goal III:** The NPS also strives to develop strong partnerships with public and private organizations. In FY02, Yellowstone spent approximately 10% of its expenditures on partnerships with organizations such as the Greater Yellowstone Coordinating Committee, Yellowstone Association, the Yellowstone Park Foundation, and the Youth Conservation Corps. Considering current funding levels, the park estimates that 9% of its shortfall affects its ability to further partnerships.
- **Goal IV:** Yellowstone continually strives to increase its organizational effectiveness, thereby improving the park's ability to achieve its mission. In FY02, Yellowstone spent approximately 26% of its budget on improving its everyday management practices and processes, as well as its information technology systems. Realizing the widespread benefits of such activities, the park estimates that 18.1% of its shortfall relates to Goal IV.

FY02 Expenditures by GPRA Goal



GPRA Mission Goals

I. Preserve Park Resources

- Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.
- The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

II. Provide for the Public Enjoyment and Visitor Experience of Parks

- Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.
- Visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations.

III. Strengthen and Preserve Natural and Cultural Resources and Enhance Recreational Opportunities Managed by Partners

- Natural and cultural resources are conserved through formal partnership programs.
- Through partnerships with other federal, state, and local agencies and nonprofit organizations, a nationwide system of parks, open space, rivers and trails provides educational, recreational, and conservation benefits for the American people.
- Assisted through federal funds and programs, the protection of recreational opportunities is achieved through formal mechanisms to ensure continued access for public recreational use.

IV. Ensure Organizational Effectiveness

- The National Park Service uses current management practices, systems, and technologies to accomplish its mission.
- The National Park Service increases its managerial resources through initiatives and support from other agencies, organizations, and individuals.

Funded Investments



Advances in GIS technology require annual hardware and software upgrades.

In FY02, Yellowstone spent \$13.3M on Investments. Investments are defined as significant, one-time costs that parks incur in order to fix current problems or provide for future development. Yellowstone National Park implements numerous Investments to better achieve the park mission, such as constructing new facilities, purchasing new information technology infrastructure, and conducting baseline inventories of natural and cultural resources.

Appropriated non-base funds are typically allocated to cover the cost of labor and non-labor needs associated with Investment projects. The majority of Yellowstone's FY02 Investment funding covered non-labor costs (84%), while the remaining 16% provided the labor associated with implementing Investment projects. Examples of FY02 Funded Investment projects include:

- **Condition assessments on government facilities and contract development (\$1.5M):** The park has taken a proactive approach to asset management by contracting with private companies to conduct condition assessments on government facilities assigned to concessioners. Condition assessments will ensure deferred maintenance and structural fire items are identified and addressed in future concession contracts.
- **Federal Lands Highway Program (\$293K):** The park funded natural and cultural resource planning, compliance, and GIS support activities on active road segments.
- **Construction of the Heritage and Research Center (\$6.1M):** Yellowstone initiated construction of this facility to house historic records, photographs, rare books, manuscripts, and other cultural and natural history objects.
- **Construction and acquisition of employee housing (\$1.5M):** The park constructed an employee housing facility in the Lake District, and acquired the Lapeyre House in Gardiner, Montana.
- **Mitigation of invasive aquatic species (\$253K):** Yellowstone received funds for a project geared toward

eradicating lake trout and researching whirling disease at Yellowstone Lake.

- **Cultural resource preservation projects (\$243K):** The park conducted ten small projects to preserve collections, historic structures, and archeological resources.
- **GIS resource information upgrades (\$62K):** Yellowstone conducted several GIS data collection and mapping projects, including a geothermal and thermophile inventory, and the development of a planning and compliance database, a fire history atlas, and noxious weed mapping.
- **Infrastructure technology and communications upgrades (\$33K):** The park funded a variety of technology and communications needs, including an upgrade to servers and an intercom system, new software, and better hand-held radios.

Investment funding is designed to fund one-time projects that increase or maintain Yellowstone's asset base. However, due to unfunded Operations and Maintenance requirements, such as cyclic maintenance of facilities and roads and preventive maintenance for park vehicles, the park often uses Investment funds for O&M activities. This budgeting practice allows the park to fulfill many of its unfunded O&M requirements, but creates a false sense of funding stability. Non-base sources of money can vary greatly from year to year, thereby becoming an unsteady funding base for annual park requirements. This becomes especially important when considering that many of the park's O&M personnel costs are currently funded with Investment dollars (e.g., approximately 60% of the carpenter shop). Thus, if Investment funding declines, so does the park's ability to support personnel performing O&M activities. Managers are currently working to reduce the park's dependence on Investment funding for O&M requirements by requesting justifiable increases in the park's current base budget.



The new Heritage and Research Center is scheduled to be completed in FY2004.

Priorities and Strategies

Park Goals

As part of the business planning process, Yellowstone's leadership has taken on the challenge of approaching park management in a systematic and strategic manner, such that day-to-day activities are linked to the park's mission. By addressing Yellowstone's issues in an integrated fashion, the park hopes to clearly communicate its priorities to the public, visitors, and park staff, resulting in more effective mission accomplishment.

Mission

The mission of the National Park Service is "to conserve the scenery and the natural and historic objects and the wild life...and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." In

Yellowstone, our mission reflects the NPS mission: to preserve unimpaired the park's natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations. This is the starting point for determining Yellowstone's priorities and strategies.

Goals

The park's overall goals are designed to help it to meet its mission. Yellowstone's goals support the themes that are highlighted in the park's mission:

- Improved resource preservation: Protecting the park's natural and cultural resources
- Improved public enjoyment/visitor experience: Providing positive experiences for all who interact with Yellowstone
- Improved safety: Ensuring the physical safety and well be-



Resource and visitor protection efforts often coalesce with opportunities for resource education by park staff as visitors crowd roadsides to view wildlife.





Fringed gentian, one of the park's 1,098 native plant species, are often found in thermal areas.

ing of the park's visitors and employees, as well as environmental safety

- Improved efficiency and effectiveness: Managing the park's human and financial resources for maximum benefit

These goals are interrelated. A more efficient and effective park will be better able to contribute to public enjoyment and resource preservation. Visitors are more likely to enjoy their experience if it is a safe one. Resources will be better preserved if visitors and the general public are well-informed. Therefore, these goals must be understood to be part of a coherent and integrated system.

Yellowstone's goals will evolve over time. By working toward current goals, managers hope to enhance relationships with stakeholders and foster partnerships that promote a collaborative approach to achieving the park mission. Ideally, the values and goals of the park's managers, its public, and its neighboring communities will be congruent, and all parties will contribute to the park's preservation and enjoyment.

Priorities and Strategies

Yellowstone's priorities and strategies are the specific actions that will help the park to meet its goals. While many potential programs fall within the park mission, park leaders have used the following criteria to identify those that are most important:

- Impact
 - Clearly linked to one or more of the goals identified above
 - Benefits multiple park divisions
 - Has a positive, measurable benefit
- Implementation
 - Relatively few financial and personnel resources required to implement
 - Consistent with the goals of the National Park Service and U.S. Government
 - Strong fit with priorities communicated through other channels

The following pages describe Yellowstone's priorities and strategies, which were ranked against the criteria above. Park managers will place special emphasis on actions that are high impact *and* relatively easy to implement. Ultimately, Yellowstone's managers understand that the way an organization spends money reflects its values. Therefore, the park is committed to ensuring that each of its priorities and strategies is linked to one, if not more, of its management goals.

The dollar amounts associated with each of the following priorities and strategies were derived using a variety of broad estimation methodologies. As implementation plans are created, the park will perform more detailed cost/benefit analyses on each of the priorities and strategies.

Parkwide Priorities: Operations and Maintenance

Operations and Maintenance (O&M) includes activities required to carry out everyday park operations. The O&M priorities listed below directly contribute to the park's goals and, therefore, overall mission. The total cost of implementing these priorities is estimated to be \$10.3M, which represents 45% of the park's \$22.7M shortfall. The park's top O&M priorities address issues affecting a wide range of programs, including cultural and natural resource management, education, visitor center operations, external affairs, visitor safety services, roads operations, and roads maintenance.

Goal: Improved Resource Preservation

Operate New Heritage and Research Center

Scheduled for completion in 2004, the park's new Heritage and Research Center will house historic records, photographs, rare books, manuscripts and other cultural and natural history objects. The facility will require additional staff and monies to curate, monitor, and support the appropriate use of the collections; develop exhibits; and acquire additional items. The park identified O&M support for this facility as a top priority because it will maximize the value of this new asset to the public.

Total cost: \$853K (includes 8 FTE)

Integrate Research, Resource Management & Education

National parks are in constant need of scientific data to guide resource management decisions, and park staff need up-to-date information to keep the public well informed. YNP's research and education programs, however, are not well integrated. To better this situation, the NPS Natural Resource Challenge calls for the development of Learning Centers to enhance research efforts through partnerships and transfer information to the public and other stakeholders, creating the need for a coordinator to strengthen the links between park divisions and partners in the areas of science and education. The park has submitted a proposal for a Greater Yellowstone Learning Center. As one compo-

nent, the Division of Interpretation will manage integrated, curriculum-based residential programs for approximately 2,400 regional middle and high school students to engage them in field research projects alongside research teams working through the Learning Center. Getting regional students involved in park management questions will help them understand the park's significance and help build stronger relationships with local communities. Students will be charged a fee (projected to total \$352K by FY06).

Total cost: \$713K (includes 11 FTE)

Control Exotic Species

Exotic species control efforts strongly impact park resources. Invasive exotic species threaten the integrity of Yellowstone's native plant, mammal, bird, and aquatic species. Many of the park's most important resource issues stem from exotic species introductions. Non-native, predatory lake trout and whirling disease both imperil 42 native species of fish-dependent fauna and a \$36 million sport fishery. The exotic New Zealand mudsnail threatens aquatic habitats. Brucellosis, originally spread to park bison by domestic cattle, is an ongoing management issue. O&M funding would permit predictable and continuous control and/or eradication actions, inventories, and assessments of exotic species.

Total cost: \$1.2M (includes 15 FTE)

Goal: Improved Public Enjoyment

Enhance Visitor Services & Foster Community Dialogue

Each year, 2.1 million people use the park's visitor centers. During the peak summer season, visitors can sometimes wait in lines for up to 20 minutes to obtain basic information from visitor center staff. Also, the park and its gateway communities could benefit from greater communication. Adding 9.6 FTE would ensure that visitors would rarely have to wait more than five minutes for information at visitor centers during peak hours. During non-peak seasons, these staff would be available to participate in numerous

The park's top O&M priorities address issues affecting a wide range of programs, including cultural and natural resource management, education, visitor center operations, external affairs, visitor safety services, roads operations, and roads maintenance.



The lake trout eradication program is expensive but essential to the continued health of the park's ecosystem.



A structural fire crew responds to a call at the Old Faithful Snow Lodge.

community dialogue meetings with members of YNP's major gateway communities. This program would support public understanding, appreciation, and protection of Yellowstone's resources and help the park and its gateway communities better support each other.

Total cost: \$779K (includes 9.6 FTE)

Goal: Improved Safety

Improve Visitor Safety and Security

Yellowstone's wildlife, thermal features, and the inherent risks of backcountry travel present unique safety issues for park staff. Currently, the park lacks staff specifically assigned to emergency medical services (EMS) and search and rescue; both are performed on an ad hoc basis by park rangers. The park also does not have dedicated 24-hour law enforcement coverage in its eight developed areas (those with overnight accommodations). YNP intends to establish 24-hour law enforcement coverage in several phases over time, with a total of 33 FTE in the first phase (included in this plan).

Total cost: \$3.4M (includes 33 FTE)

Build Structural Fire Program

There are 1,541 structures in YNP, including 951 historic structures, yet the structural fire department does not meet National Fire Protection Association and OSHA standards. In fact, following a 2000 audit, the General Accounting Office concluded that the entire NPS was "not meeting its structural fire safety responsibilities." Yellowstone's leadership has submitted structural fire requests for staffing (33 FTE) and equipment as three of the park's top 15 priorities in the NPS Operations Formulation System, which is used for operating increase submissions to the NPS budget. In order to be fully compliant with the strictest national standards, YNP would need 81 more FTE. The park intends to phase in these personnel, with an additional 29.3 as a goal for the next five years. Dedicated structural fire staff would

spend their non-firefighting time conducting fire inspections and providing training for park and concessioner staff.
Total cost: \$2.2M (includes 29.3 FTE)

Goal: Improved Efficiency and Effectiveness

Increase Roads Preventive Maintenance

Park staff maintain 466 miles of paved and unpaved roads in Yellowstone, ranging from primary roads (Class 1) to restricted roads (Class 6). Park staff have designed a preventive maintenance program based on industry standards; however, the maintenance division is currently unable to accomplish most of this work. For instance, YNP currently chip seals 10 miles of roads per year, or one-quarter of that which preventive maintenance standards indicate is necessary. This results in more rapid degradation of roads, leading to hazardous conditions and the need to perform more frequent and expensive repair and rehabilitation work. The park needs an additional 4 FTE and \$300K in materials and supplies to achieve annual preventive maintenance goals, at which time it is estimated that YNP will save approximately 50% annually in major repair and rehabilitation costs.

Total cost: \$730K (includes 4 FTE)

Obtain Additional Base Funding for Roads Operations

Yellowstone's rugged conditions require season-specific O&M activities to make the park accessible to visitors, including installing 7,000 snow poles; grooming 184 lane miles for travel by oversnow vehicles; performing avalanche control; plowing and sanding during winter; and conducting spring snow removal activities to prepare roads for car travel. Vehicle operations personnel must purchase new replacement snowmobiles each year (\$250K) because of wear and tear from winter operations transportation requirements. To ensure adequate and stable coverage of all O&M programs, the park must obtain additional base funding for these activities.

Total cost: \$434K (includes 4 FTE)



Rugged winter conditions require extensive plowing and sanding operations.

Parkwide Priorities: Investments

Investments are significant one-time costs that parks incur to fix current problems or provide for future development. When implemented, the Investments below, totaling \$23.4M, are expected to contribute to operational efficiencies across a wide variety of programs, including cultural and natural resource management, facility operations, visitor safety services, roads maintenance, transportation systems and fleet, general management, and financial management.

Goal: Improved Resource Preservation

Build Baseline Resource Inventories to Aid Park Planning

Yellowstone's staff require a solid scientific understanding of park resources to meet the mission of resource preservation. The park's natural and cultural resources are spatially and temporally complex. A comprehensive, multi-taxa inventory would enable the park to proactively anticipate resource management problems and develop management plans that address them before they become crises. Applied research also helps the park reduce its legal bills from challenges in court.

Investment required: \$3.3M

Goal: Improved Safety

Build a Structural Fire Program

Yellowstone's highest priority Investment needs are adequate fire engines for all developed areas. Fire engine requirements are based on the cubic footage of the largest building to be protected. The 1.9M cubic-foot Old Faithful Inn, for example, requires 13 fire engines. Currently, the entire park has a total of 13 fire engines. In order to meet response times, three additional engines are required. Climate-controlled emergency service buildings are also a priority; in the event of a wintertime fire at one of the six developed areas without emergency service buildings, rangers must spend critical time manually filling the engines with

water that otherwise would have frozen. The total structural fire investment includes \$750K for three fire engines, \$1.2M for six fire stations/emergency services buildings, and \$350K for 70 new self-contained breathing apparatus.

Investment required: \$2.3M

Establish a Comprehensive Safety Plan

Yellowstone's safety program is decentralized. Individuals from all park divisions provide safety training and perform other safety-related duties. The current safety program meets minimum safety and environmental compliance standards, but does not provide the optimal level of overall safety management. Park managers plan to augment the existing program with a centralized safety management team to properly track training requirements and hazardous waste disposal documentation; ensure that all training is standardized throughout the park; and implement standardized plans for inspections. The initial required investment includes the costs for linking a safety training tracking system with a personnel database and creating a list of required training by employee position. After training requirements are established, park personnel will implement a core safety training course for seasonal employees and provide specialty training for all required personnel. Also, managers will conduct monthly inspections of work areas, and will be accompanied by a safety employee at least once per year.

Investment Required: \$13K

Goal: Improved Efficiency and Effectiveness

Develop Strategic Housing Study and Plan

Currently, Yellowstone has 454 housing units to allocate among permanent and seasonal staff, and volunteers. There is a strong need for additional housing, as well as a more consistent and equitable allocation system. The lack of housing often makes it difficult to attract and retain high-quality employees and seasonal volunteers. YNP seeks to

Yellowstone's staff require a solid scientific understanding of park resources to meet the mission of resource preservation.



Construction of sufficient garage space will increase the functional life of the park's truck fleet.



Replacing substandard housing is a long-term park goal.



A consistent fleet maintenance program will help prolong the life of park vehicles.



Investing in the structural fire program will help ensure the safety of irreplaceable historic structures like the Old Faithful Inn.

contract a study of all housing opportunities. The study would also recommend strategies for the park's housing allocation system.

Investment Required: \$144K

Replace Fleet and Equipment

Yellowstone's vehicle fleet and equipment inventory includes 870 units. Park managers have developed a cyclic replacement program for fleet equipment that reflects industry replacement recommendations from the private sector and other government agencies. More than 205 light vehicles and 194 pieces of equipment exceed the mileage or age standard. Operating such a fleet is not cost-effective; repair costs rise each year, and the breakdown/preventive maintenance ratio is unbalanced. Breakdowns often cause employees' work to be delayed or deferred. The estimated total cost of updating fleet and equipment is \$1.5M each year (20-year plan).

Investment Required: \$7.5M

Reconstruct Roads

Yellowstone's roads are in need of major reconstruction. If preventive maintenance activities are regularly implemented, reconstruction will last up to 50 years. In past years, park managers have succeeded in acquiring approximately \$10M per year to pay for a road reconstruction

partnership with the Federal Highway Administration. However, the park needs an annual investment of \$10M to \$25M over the next five years to continue reconstructing park roads before they degrade to a hazardous level. If the park does not acquire this annual Investment funding, maintenance costs on old sections of road are estimated to be 50% higher per year.

Investment Required: \$10M to \$25M annually over next five years

Prioritize Assets

Yellowstone's managers frequently face the challenge of how to divide limited financial resources among numerous material asset requirements (repair, replacement, or rehabilitation). Currently, there is no clear prioritization of those assets, and so personnel are forced to repeatedly justify the importance of their assets to effectively compete for funding. Park managers wish to contract a staff of four consultants, to work with park personnel for six weeks to develop a comprehensive list of Yellowstone's material assets ranked by their relationship to park priorities. This priority listing will be linked with the facility operations and maintenance information tracking system, to create a powerful tool providing clear guidelines on expenditures and assist staff with decision-making processes.

Investment Required: \$144K

Strategies for Reducing Costs

This section presents strategies for increased internal efficiencies and more effective park management. Combined, these strategies are expected to lead to an estimated savings of more than \$1.5M.

Partner to Develop Energy Savings Program

Yellowstone intends to aggressively pursue an energy savings program. Currently, the park's utilities costs are beyond its control, leaving YNP vulnerable to market fluctuations and making energy expenditures highly uncertain. In the past five years, Yellowstone's total annual energy costs for fuels and electricity have approached \$2M per year (an average of about \$5.3K per day) and have had year-to-year cost fluctuations of as much as 26%.

YNP is interested in investigating currently available technologies including micropower systems, (i.e., microturbines to harness the energy of water moving downhill in already existing pipelines), mini-windturbines, and solar and fuel cells. The park plans to test fuel cell and electric vehicles including buses and trucks, and experiment with technologies to reduce space heating usage and costs.

Yellowstone intends to increase use of existing relationships, particularly its partnership with the Idaho National Engineering and Environmental Laboratory. These institutions would conduct studies to investigate ways the park can adjust current operations and infrastructure to minimize reliance on outside energy providers and maximize cost savings. If energy costs were reduced by as little as 6 to 10%, an initial investment of up to \$200K could be recovered the following year. A five-year strategy that could reduce energy demand and costs by a conservative estimate of one-third would result in savings of up to \$660K per year in future years.

Net benefit after initial costs: \$660K per year

Create Employee-Initiated Cost Savings Program

Park managers intend to create an incentive program to encourage all park staff to report opportunities for cost savings that they identify in the course of day-to-day operations. Ideas resulting in calculable cost savings would earn the reporting employee one day of annual leave, thus incurring no out-of-pocket cost to the park. An employee-based program such as this would empower staff on all levels to make positive changes, take leadership initiative, and prioritize their program's assets. If one-third of the park's employees (200) were successful in reducing the park's operating costs by .5% per year (\$275K), through direct cost reduction and the increased efficiency that would come from prioritization, then the park would save \$250K annually.

Net benefit: \$250K per year (compounded in future years)

Develop and Conduct Surveys and Evaluation Tools to Aid Strategic Decision-Making

In the past, Yellowstone has contracted out its visitor surveys. Each survey yielded important findings about visitor needs and preferences, but was deployed on a relatively small scale, often using different methodologies. To unify such efforts, park managers wish to develop a comprehensive plan for surveying visitors, employees, concession customers, and residents of gateway communities. The park intends to use the survey results to direct its efforts, thereby reducing costs and maximizing impact. If the park were able to save 1% of planning program costs, 1% of interpretive costs, and 1% of labor costs based on the results of these surveys, the benefit would be \$355,000. The goal is to coordinate, direct and integrate surveying efforts (annual cost of \$65K) and produce four major surveys per year (annual cost of \$25K each).

Net benefit: \$190K



Surveys yield important information about visitor needs and preferences.



The park will examine the outsourcing of appropriate services in accordance with standards and goals that advance the public interest and do not undermine core competencies of the government.

Create Annual Parkwide Diagnostic of Functional Activities

To reduce park expenditures, park managers plan to examine the benefits of implementing an annual parkwide diagnostic review that will analyze program processes and expenditures, identify inefficiencies, and formulate future cost saving strategies. Each year, cross-functional employee teams will receive cost/benefit analysis training (if necessary) and guidance from a fulltime park efficiency program manager and analyze pre-selected activities or processes that may lend themselves to inefficiencies. As a result, teams may identify cost-reducing strategies. The estimated annual cost for this activity is \$110K, which includes an efficiency program manager and five teams (five employees per team, each spending two weeks/year) at approximately \$50K per year. If teams succeed in reducing the park's total expenditures by at least .5% per year (\$275K), then the park will save a total of \$165K annually.

Net benefit: \$165K per year (compounded in future years)

Create a Strategic Budgeting Program

YNP's budgeting staff could improve through increased centralization. Each division has its own group of budget analysts, all of whom use their own financial tracking systems and report to different people. Centralization would allow managers to obtain the status of the entire park budget on a standardized basis. All analysts need to be able to quickly obtain accurate financial data from an integrated parkwide system. YNP plans to improve its budgeting program by strategically integrating current budget tracking systems; ensuring standardization and sharing of information through quarterly budget meetings; and establishing a matrix reporting system that requires budget analysts to report to the park's comptroller in addition to their division chiefs. The estimated costs of improving the budgeting program are approximately \$49K, which include: a) con-

tracting information technology experts to install middleware that links legacy systems to user-friendly budgeting software (estimated \$20K); b) new system training for budget analysts (40 hours per analyst); and c) staff hours expended on quarterly budget meetings (two hours per meeting). If a strategic budgeting program enabled budgeting staff to work 50% more efficiently on budget calls alone, the total annual benefit would be approximately \$32K after the first year's investment.

Net benefit: \$13K, Year one; \$32K after Year one

Investigate Competitive Sourcing Opportunities

There are two ways the park can implement competitive sourcing activities into its decision-making processes: 1) examine opportunities to outsource activities that are currently performed by park staff; and 2) analyze outsourcing costs prior to implementing significant increases in staff. In the first scenario, park personnel have proposed to evaluate the outsourcing potential of grounds and janitorial services, campground maintenance, and fleet maintenance. In the second scenario, managers will perform a competitive sourcing study prior to any large hiring action to assess whether private providers could perform the needed activities more effectively and efficiently. When considering either scenario, park managers will be mindful of the National Commission on the Public Service's recent recommendation that competitive outsourcing should follow clear preset standards and goals that advance the public interest and do not undermine core competencies of the government, and its caveat that if perceived as serving the sole purpose of reducing the government workforce, it can undermine employee morale. If the park can save even 1% of labor costs through outsourcing activities in a year, the savings would be approximately \$268K.

Net Benefit: \$268K per year

Strategies for Increasing Non-Appropriated Funding

Yellowstone's management team has recommended the following strategies for increasing non-appropriated funding, with the goal of increasing benefits to the park from sources other than Congressional appropriations, such as volunteers, concessioners, gateway community agencies, private companies, the Yellowstone Park Foundation, and park visitors. When implemented, they are expected to have an estimated total net benefit of \$693K.

Maximize Volunteer Contributions

In FY02, volunteers contributed 88,088 hours to Yellowstone National Park, for a net value of \$1.36M. Expanding the Volunteers In Parks (VIP) program offers an attractive return on investment. A number of factors currently limit the program's contribution. Most importantly, the park's size makes providing housing a necessity for long-term VIPs from outside the surrounding area, or those working in the park's interior locations. To expand this program, the park must identify opportunities that do not require housing, such as providing free accommodations for volunteer groups in park campgrounds.

Numerous service groups and other organizations have completed tasks while residing in park campgrounds that would otherwise remain on an already long list of deferred maintenance projects. For example, a group of employees from the telecommunications industry rebuilt and rewired a CCC-era lighted walkway between the campground and amphitheater at Fishing Bridge. A further advantage of this type of group is that they bring the expertise with them, and so require minimum supervision by park staff.

The park could also better utilize existing volunteer pools. Elderhostel is a national nonprofit educational organization that provides residential learning opportunities for

people 55 and older. Administered in the Yellowstone area by the University of Montana, Elderhostel has developed a service program aimed at providing meaningful volunteer opportunities that serve the public good. The advantage of Elderhostel is that accommodations are provided through the program at area lodging facilities in or near the park.

It would take approximately 75% of a new seasonal VIP Assistant's time to maximize volunteer contributions. Coordination would include working with park managers to both encourage them to use volunteers and maintain a central list of available projects. This "catalog" of volunteer projects could be distributed to groups with the expertise to complete critical work. Projecting 40 groups of 30 volunteers per year, such a program would bring the park an additional 8,400 VIP hours annually, valued at \$16.05 per hour. With this number of groups, the total number of overnight stays available to visitors at campgrounds during the summer season would be reduced by less than 0.5%. An annual investment of \$22K could yield an annual net benefit of \$113K.

Estimated net benefit: \$113K per year.

Increase In-Kind Benefits from Concessioners

In FY02, Yellowstone managed 194 concession authorizations for a variety of services. Yellowstone's commercial operators gross over \$80M annually. The park's business management staff negotiate contracts with a goal of maximizing benefit to the public and the NPS. Currently, direct benefits to the government exceed \$12M annually (in special accounts, maintenance obligations, franchise fees, etc.). As previous contracts expire, park managers intend to continue to negotiate new contracts to provide more benefits to the park, such as assisting with parkwide visitor surveys; providing more out-of-park housing for concessioner em-



The historic Lake Hotel is owned by the NPS and operated by Xanterra, a park concessioner.

Roger Anderson



The park derives strong benefits from its associations with "friend" groups, including the Yellowstone Park Foundation, Yellowstone Association, and Yellowstone National Art Trust.

employees; providing services to NPS-managed campgrounds; or enhancing environmental programs through "green" construction and alternative fuels. If the park were able to get .25 percent of the total \$12M in direct benefits in additional in-kind services, the benefit to the park would be approximately \$30K per year.

Estimated net benefit: \$30K per year

Increase Partnership Funding Opportunities

Yellowstone typically uses Investment funding to design and construct new infrastructure and for high-cost equipment purchases. However, in past years, park managers have successfully established creative partnerships with organizations that have donated materials and equipment. For example, Unilever donated over \$300K of plastic lumber to build more sustainable boardwalks at the Upper and Midway Geyser Basins. Additionally, Yellowstone received generous equipment donations from Sony (projector system valued at \$43K) and Canon, USA (research project funding and equipment valued at \$800K per year). The park may be able to extend its partnerships with these private sector companies, and should continue to seek creative partnerships that provide additional funding or material donations for infrastructure, equipment, and other needs.

Estimated net benefit: \$35K per project

Integrate Foundation Activities with Park Priorities

Continuing with the process that has been developed during business planning, Yellowstone's managers plan to continue to regularly meet to discuss, develop and agree upon a series of actionable priorities that are tied to the park's goals and mission. Examples of parkwide priorities are discussed throughout this business plan, and managers will update these priorities from year to year. By having updated priorities that exhibit strong ties to its goals and mission, the park will be better able to justify funding requests to private funding sources. Yellowstone should integrate its

priority-setting activities and documentation with the Yellowstone Park Foundation (YPF) and its activities. In the past, YPF has successfully acquired funding for park priorities, such as the Old Faithful Visitor Education Center. The park's relationship with YPF will be even more effective if YPF is able to present clearly-defined parkwide priorities, accompanied by cost-benefit analyses, to potential donors. If YPF was able to give 5% more than its current annual contribution of \$380K, the benefit would be approximately \$19K.

Estimated net benefit: \$19K per year

Explore an Increase in Fees

In 1997, Congress created the Recreation Fee Demonstration Program, which allowed Yellowstone to retain 80% of fees collected. In FY02, these revenues totaled more than \$6.8M, including entrance fees, campground fees, and special use permits for boating, fishing, and other activities. Entrance fees were by far the largest category, bringing in \$5.8M. The cost of collecting these fees was \$0.26 per dollar of revenue. Considering the large number of visitors paying fees of some kind, a small change in fees could have a dramatic effect. As an informal example, if entrance fees were increased by \$2.00 per vehicle, this would net an additional \$432K in revenue per year. While other fees (i.e., backcountry permits, fishing permits, and campground fees) compose much smaller portions of total park revenues, increases in such areas can still make a measurable impact. For example, in FY02, campground fees amounted to more than \$324K. By increasing the charge per night by \$2.00, for instance, the park would receive an additional \$64K per year at little or no additional cost. This could be implemented in conjunction with or in place of an increase in entrance fees, depending on the results of the research on the impact of such an increase on visitor satisfaction.

Estimated net benefit: \$496K per year

Looking Forward

By preserving unimpaired Yellowstone's natural and cultural resources and values for the enjoyment, education, and inspiration of this and future generations, we hope to be a model and inspiration for national parks throughout the world. Looking forward, we also hope to serve as a model by focusing on internal management issues. Yellowstone's experiences with the proposals outlined in this document—successes and failures alike—will help itself and perhaps other parks to improve internal efficiencies.

One of the primary goals of this plan is to contribute to a financial picture of the National Park Service as a whole. As such, the information gathered and presented here is valuable not just for Yellowstone, but for the National Park Service, allowing comparison across parks.

This process has been good for Yellowstone in several ways. For example, by identifying the best technology available to move toward energy self-sufficiency, we will reduce costs while making our infrastructure more environmentally sound, and promote national goals of energy independence while expanding our existing partnerships with a mutual goal of innovation. Providing an open account of how our existing funding is allocated has allowed us to identify areas in which we can improve our own internal operations and areas in which we will need further assistance to both achieve what is legally required of us and aim

even higher. Finally, producing this document has required us to consolidate a vast amount of information and analyses concerning the current state of our programs, and to examine those analyses within the context of our historical and current funding. Having that information available has facilitated the prioritization process that led to our five-year goals, which will ultimately help us concentrate our efforts and resources in areas where they are most needed.

Recognizing that we do not have all the answers, we at Yellowstone also hope to facilitate the sharing of best practices and lessons learned across parks. Communication with other parks, agencies, and private sector partners will encourage stronger management practices. We also seek opportunities to collaborate with other parks to ensure that our staff learn from the expertise of their counterparts throughout the NPS.

Yellowstone has a longstanding history as a leader in the National Park Service. However, in order to continue contributing to the goal of serving as a “model and inspiration,” we must find new and improved ways of managing the park's resources while providing for visitor experience and enjoyment. We hope to use this business plan as a communication tool to facilitate better teamwork—within our own staff, across parks, across agencies, and with the many constituents and individuals who care about and for these very special places that comprise the National Park System.



Lower Falls of the Yellowstone River.

Additional Information

The following documents are available in html or pdf format on the park's web site, www.nps.gov/yell:

- Winter Use Plans and Supplemental Environmental Impact Statement for Yellowstone and Grand Teton National Parks and the John D. Rockefeller, Jr., Memorial Parkway (2003)
- The Yellowstone National Park Strategic Management Plan (2000)
- Long Range Interpretive Plan (2000)
- The State of the Park (1999)
- Winter Visitor Use Management Assessment (1999)

Further information is available at the following web sites:

- The Yellowstone Association, www.yellowstoneassociation.org
- The Yellowstone Park Foundation, www.ypf.org
- The Yellowstone National Art Trust, www.ynat.org



For many visitors, seeing a grizzly bear in the wild is a once-in-a-lifetime experience.

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NPS policy calls for restoring native species. Yellowstone reintroduced gray wolves in 1995.

Notes



